POTATO HARVESTING IN THE LOTHIANS 1870 TO 1995

Volume I

Heather D. Holmes

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DECLARATION

I declare that this thesis has been composed by myself, Heather Holmes.

ABSTRACT

This thesis examines the themes of harvest technology, techniques, labour supply and employment conditions for the potato harvest in the Lothian area of Scotland during the period 1870 to 1995. These themes, which are inter-related, focus on what it was like to to harvest the crop during a period when much casual labour was required, and also one when the process was undertaken mechanically.

Using documentary evidence, published sources and oral testimony, the thesis demonstrates how the various harvesting technologies used throughout the period (the potato graip, potato plough, spinner, elevator digger and mechanical harvester), affected harvesting techniques and the work of the people employed to gather the crop. By focusing on the three main types of workers employed to gather the crop, local women, school children and Irish migrant workers, it can be seen that a diverse range of employment conditions were given to each, and throughout time, as a result of local customs, traditional employment conditions, legislation and other regulations which sometimes only operated for a short period of time. The study of the workers shows that there could be problems in obtaining a supply of labour which were caused by personal and economic circumstances of the workers themselves, combined with factors outwith their control, such as attitudes towards their employment and the introduction of legislation. It can then be seen why the labour supply altered during the period of the study, and the reasons for the adoption and use of the mechanical harvester during the second half of the twentieth century.

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ABBREVIATIONS

AEC	Agricultural Executive Committee
BAS	Board of Agriculture for Scotland
C.	Command Paper
Cd.	Command Paper
Cmd.	Command Paper
Cmnd.	Command Paper
DAS	Department of Agriculture for Scotland
EIS	Educational Institute of Scotland
HMI	His (Her) Majesty's Inspector
IFC	Irish Folklore Commission paers in Department of Irish Folklore, University College dublin, Dublin
ITGWU	Irish Transport and General Workers' Union
JRASE	Journal of Royal Agricultural Society of England
MAFF	Ministry of Agriculture, Fisheries and Food
n.a.	Not available
NAD	National Archives, Dublin
PMB	Potato Marketing Board
PP	Parliamentary Paper
RASE	Royal Agricultural Society of England
SBH	Scottish Board of Health
SED	Scottish Education Department

SDD	Scottish Development Department
SHHD	Scottish Home and Health Department
SMC:	School Management Committee
SND	Scottish National Dictionary
SNFU	Scottish National Farmer's Union
SEA	Scottish Ethnological Archive, National Museums of Scotland
SMC	School Management Committee
SRA	Strathclyde Regional Archive, Glasgow
SRO	Scottish Record Office, Edinburgh
SSS	School of Scottish Studies, University of Edinburgh
STUC	Scottish Trades Union Congress
THASS	Transactions of the Highland and Agricultural Society of Scotland
YMCA:	Young Men's Christian Association

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PART 1: INTRODUCTION

CHAPTER 1: INTRODUCTION

Although many people - men, women and children - were employed at the potato harvest well into the twentieth century, there are few studies of this important feature of social and economic history. Much of what does exist describes harvesting implements and techniques, and is of a contemporary nature. Less work has been undertaken on the workers who were employed to harvest the crop. Although there are fragmentary references which report the sources from which labour was obtained, there is only one comprehensive study on their use, that by a Sanitary Inspector, Dr John McVail, in the early years of the twentieth century.[1]

More attention has been focused on the employment of particular groups of workers for harvesting the potato crop. Of these, a number of studies have been undertaken on the employment of seasonal workers who migrated from Co. Donegal and Co. Mayo in western Ireland, to work in either small groups employed at general harvesting work, or larger sized squads employed specifically for harvesting the potato crop, in Scotland and England. James Handley's work, The Irish in Modern Scotland, published in 1947, was the first study which made specific reference to the migratory potato workers and their employment conditions, particularly their accommodation, and, with his other volumes has become a classic.[2] However, no further studies were made of the seasonal migratory workers until those undertaken in

the late 1970s and early 1980s by Jonathan Bell. While his thesis makes general comments about emigration from the Dunfanaghy district of Donegal, it also refers to seasonal migrants employed at the Scottish potato harvest.[3] In other studies he concentrates on the seasonal migrants, both at the potato harvest and at other seasonal work such as herring gutting.[4] Anne O'Dowd's Spalpeens and Tattie Hokers, published in 1991, is the most extensive single study on the Irish seasonal agricultural migrants, and examines their work at seasonal agricultural work in Ireland and throughout Britain.[5]

Few other studies have been undertaken on the employment of other groups of workers for harvesting the potato crop. The widespread employment of women has received little attention, though their employment in general agricultural work has been discussed by a number of scholars.[6] The only published work which examines their employment at the potato harvest is by Ian MacDougall in his recorded testimony of a squad or group of women employed by a potato merchant, Robert Hogg from Dalkeith in Midlothian, until the 1950s.[7] Although the book focuses on one squad, it also refers to work with other employers, thus providing contrasting experiences of employment conditions. There are also no extensive studies of the employment of children at the potato harvest. References, which are often very brief, are to be found in general studies on their employment in agriculture and their place in agricultural communities.[8]

AIMS OF THE THESIS

This study seeks to fill a large gap in our knowledge of the potato harvest. It discusses the various elements of the potato harvest: labour supply, the harvesting technology, harvesting techniques and employment conditions of workers. Although these subjects are interrelated, and show exactly what it was like to work at the potato harvest, no single study has hitherto combined all the aspects of the potato harvest in this way, presenting a complete picture of the potato harvest and its complex nature.

As previous studies tend to focus on one particular group of workers, such as Irish migratory workers, women and children, they only show the experiences of one type of worker. However, the types and groups of workers employed at the potato harvest were often complex, even within a small geographical area. This thesis will focus on a number of groups of workers employed, showing the inter-relationship between them. The diverse range of employment conditions will be seen, some of which were unique to particular groups.

The thesis also seeks to re-address the subjects which have been studied before. Studies of Irish migratory workers and children tend to discuss employment conditions throughout Scotland, or indeed on the level of other countries in Britain, rather than in any particular geographical location or county. As a result, they are apt to generalise, rather than show what conditions were like in any specific location, which may well have been different from those experienced in other areas. It is the aim

of this thesis to focus on the potato harvest within one geographical area, showing the differences which could exist in different subject areas even within a small area.

FOCUS OF THE THESIS

To examine the subject areas of labour supply, harvest technology, harvest techniques and employment conditions of workers, the thesis focuses on one area of Scotland, the Lothians, which comprise the three counties of East Lothian, Midlothian and West Lothian, in south-east Scotland. Although the three counties do not have the most extensive county acreages in Scotland, they are amongst the largest growing areas, as Table 1.1 for 1938 shows. Across the Lothians there was a distinct distribution of potato cultivation found from the mid 1850s (Appendix 1). As can be seen from Table 1.1, East Lothian had the largest acreage of the three counties, followed by Midlothian. However, in West Lothian the acreage was relatively restricted owing to the small size of the county.

TABLE 1.1. ORDER OF POTATO GROWING AREAS IN SCOTLAND ACCORDING TO THEIR ACREAGE IN 1938.

County	Acreage
Angus	20,542
Perthshire	18,589
Fife	15,946
East Lothian	8,049
Aberdeenshire	7,224
Ayrshire	7,199
Lanarkshire	5,925
Midlothian	5,375
Ross and Cromarty	5,349
Kincardineshire	4,471
Inverness-shire	3,197
Stirlingshire	3,040
Dumfriesshire	2,772
Renfrewshire	2,515
West Lothian	2,442

Source: "Agricultural Statistics," THASS, 5th series, LII (1940), p. 309.

Although the Lothians did not have the largest acreage under the potato crop, the amount of land devoted to it in the area is very great. By 1855, when agricultural statistics were first collected by the Highland and Agricultural Society of Scotland, there was a large acreage under the crop, also commented upon by agricultural writers.[9] In 1894 Charles MacDonald notes how the "crop frequently occupies from an eighth to a fourth of the farm, and in some exceptional cases as much as a third."[10] Concentrations continued to be noted and in 1941, when there was a great emphasis on the expansion of the acreage of the potato, some 10% of the total arable acreage in East Lothian was under potatoes; in Midlothian and West Lothian the figure was

8.2% and 8.5% respectively.[11] When compared to other counties throughout Britain, the three counties were amongst the most intensive potato growing areas. Records of the potato acreage planted by each potato grower registered by the Potato Marketing Board in 1936 show that the average grower in East Lothian grew 23.2 acres, the largest acreage of any throughout Britain; Midlothian was second with 16.1 acres. Although growers in West Lothian had an average of 9.1 acres, the figure was still higher than for many counties in Scotland and was above the Scottish and British average of 8.1 and 8.0 acres respectively.[12]

The importance of the potato crop in the Lothians can be attributed to the suitable nature of the soil which is required to grow the crop. As a result, the area gained a reputation for the high quality potatoes which were produced. In 1894 MacDonald comments how they were:

> Familiar in all the leading British markets. In the great London markets they are particularly popular, and seldom lack plenty of purchasers, even when wholesome-looking potatoes from other parts are not convertible at any price.[13]

Even into the twentieth century documentary evidence suggests that Lothian potatoes continued to be sent to the London markets.[14] While the potatoes had a high reputation, the techniques of harvesting the crop were also noted. In 1894 MacDonald comments that "it is in regard to potato-culture that the Lothians are fairly and justly entitled to the distinction of

unparalleled eminence."[15] This careful husbandry was required if the potatoes were to be sent to market undamaged and unblemished. Because of the emphasis placed on the extensive intensity of cultivation of the crop, and of high quality potatoes, the harvesting system in the Lothians had to be capable of fulfilling these requirements, which thus affected the use of labour and harvesting techniques.

FOCUS ON THE WORKERS IN THE STUDY AND THEIR ROLE AT THE POTATO HARVEST

Although a wide range of workers was employed to harvest the potato crop in the Lothians, this thesis will focus on the three groups which made the greatest contribution to it: local women, children and Irish migratory workers. All were casual workers, that is workers employed for a short period to undertake agricultural operations which could not be undertaken by the farm workers or other employers.

ROLE OF WOMEN, CHILDREN AND IRISH MIGRATORY WORKERS

Each of the three types of workers had their own part to play in harvesting the potato crop, not only in particular localities of the Lothians but throughout the counties.

Oral evidence from the Lothians as well as other evidence throughout Scotland suggests that women played a very great part in the potato harvest, even in the eighteenth century.[16]

Indeed, as late as 1963 the Potato Marketing Board states that "potato picking largely depended on [their] recruitment."[17] The extensive employment of women at the potato harvest reflected their role in agriculture in the Lothians and throughout Scotland.[18] Henry Stephens notes how field work (operations such as working with "smaller implements," gathering stones, weeding and securing crops) was largely undertaken by females rather than males, as in England.[19] Women were extensively employed for their qualities at undertaking field work as they were said to be able to produce better quality work than males, a fact attributed to their being more anatomically suited to the work, and their alertness.[20] Such qualities were essential for gathering potatoes: they allowed the digging implement to work to full capacity so the crop could be harvested as quickly as possible and let the worker get a short "breather" or break before the following drill was dug. Women were also favoured for economic reasons, as their wages were lower than those given to males, a feature still noted in the twentieth century.[21] While an important consideration in minimising harvesting costs, which formed the highest single cost in growing the potato crop, labour costs were of less importance than the ability of workers to undertake the work, or even their availability.

The role of children, who are defined in this thesis as young persons under the school leaving age still engaged in education, and who are capable of being legally employed under the Education (Scotland) Acts, and the Children Acts, was an important one at the potato harvest. The task was the largest single employer of child labour in casual seasonal agricultural work, a

fact also reported in Germany in the early twentieth century.[22] So important was their part that special provision was made by school authorities and also by an Act of Parliament, the Education (Exemptions) (Scotland) Act, 1947, to allow for their employment during school hours or during specially arranged harvesting holidays. In Scotland children also continued to make an important contribution for a longer period than in England or Wales, where they could no longer be released during school hours after 1953; in Scotland the practice ended after the 1962 harvest.[23]

The extent of child employment varied within the three counties of the Lothians. Their employment presented a complex distribution pattern, particularly before 1939 in neighbouring parishes and school districts. While released from school in one area, in another they were not, with the result that employers had to find alternative labour. However, in the Lothians children played a lesser role in harvesting the potato crop than in some other counties, even though locally they made an important contribution. In 1936 "child labour [was] difficult to get" in south-east Scotland, while in the eastern-central districts, where the largest acreages were found, they were widely employed.[24] Even at other periods, most notably the Second World War and the years immediately following it when children were extensively employed, numerically fewer were employed in the Lothians than in other areas such as Perthshire, Angus and Kincardineshire.[25]

Where children were employed at the potato harvest, sources differ as to the extent of the employment of either boys or girls. While some note that only boys were employed, it was

general that both boys and girls were.[26] There is some evidence to suggest that there was about an equal ratio of each sex. At Pilmuir, Balerno, the ratio was about equal. While there was some variation in the Tranent area between 1938 to 1945, a greater number of boys was employed. A similar situation was found in the Haddington area between 1939 and 1957 where they formed up to around 70 per cent of the total released from school.[27]

Children were widely employed at the potato harvest as they were able to undertake field work more readily rather than horse work, tractor work or other skilled work.[28] Although they had a lower work output than adults, they were said to be more physically capable of undertaking the work than them:

> The use of the spinner involves difficulties with adult labour, men and women moving slowly and being apt to shirk the freedom of movement necessary to gather up any far-flung tubers; it is partly in consequence of this, and not alone on account of the difference in the scale of wages, that growers prefer boys as pickers, for they are more active and do not object to leaving the line of the row in order to collect the whole of the crop.[29]

There is evidence to suggest that children were also preferred by some employers as their wages were lower than for adults.[30]

The employment of Irish migratory workers was particularly important and widespread in the Lothians. There were two groups, each distinctive in nature. The first was individuals or small groups, employed at general harvesting work;

the second comprised squads or groups of workers employed specifically for harvesting the potato crop, who commenced work in Ayrshire and Wigtownshire during the middle of June, and moved eastwards and northwards to Renfrewshire, Dumbartonshire, Stirlingshire, the Lothians, Perthshire and Angus thereafter.[31]

The Irish migratory workers were numerically more important for harvesting the crop in the Lothians than in other counties. Although fewer workers were employed than in Ayrshire, where they started their harvesting in Scotland, it was more extensive than in most of the counties where they were employed.[32] In 1907, for example, they were accommodated on 26 farms in West Lothian, over 30 farms in Midlothian, and over 50 farms in East Lothian, figures which were greater than for many other counties. Although these figures were lower than in the western part of Dumbartonshire and the southern part of Renfrewshire, the squads in the Lothians were larger in size and spent a longer period at each farm, which suggests that they harvested a greater acreage.[33]

The place of the Irish migratory workers was also great as a result of the large numbers employed.[34] Even after the end of the Second World War farmers in East Lothian were "a good deal dependent" on them, a comment also made by Catherine Snodgrass, who suggests that they were more frequently employed than women who resided in the county.[35]

The quality and skill of the squads of Irish workers was particularly noted. Many favourable remarks were made about their character. In 1910 it was "generally admitted" that the

workers were "industrious" and "quiet in their living."[36] Their conduct was described as "excellent": "very rarely [did] the men drink and the girls are patterns of modesty and good behaviour."[37] In 1936 Professor Alexander Gray describes them as "very dependable and docile."[38] Because of their personal qualities and skill in working with the potato graip, it was thought to be very difficult to replace them, especially as they were considered to be better workers than Scottish workers, particularly those from the labour exchanges in the towns.[39] Indeed, attempts to replace the squads of Irish workers with native Scottish workers, to work across Scotland during the 1920s were said to be a "complete failure."[40]

TIME SCALE OF THE STUDY

Although potatoes have been grown for commercial sale in the Lothians since the middle of the eighteenth century, the thesis will concentrate on harvesting during the period from 1870 until 1995. There are four reasons for examining the period:

(1) Sources of evidence from the eighteenth and early nineteenth centuries which describe the potato crop refer to its cultivation and cultivation techniques rather than how it was harvested. Where the harvest is described, it is usually only in very general terms. It is not until the 1870s that documentary evidence survives in increasing quantities which relates to all aspects of the potato harvest, suggesting that there was a growing

interest in the subjects of harvest technology, techniques, labour supply and employment conditions.

(2) By the 1870s the Lothians had become established as an important area for commercial potato growing in Scotland and the potato itself had become an important feature of the farm economy. Throughout the period of the study, that position continued (Appendix 1).

(3) The period is also one where there were changes in the employment of the three types of worker discussed in the thesis, as in agricultural employment in general. By the start of the period squads of Irish migratory workers were becoming more widespread for harvesting the potato crop, and were to become an indispensable source of labour.[41] By extending the time scale of the study, the widespread decline of this source during the second half of the twentieth century can be examined. During the period from 1870 attitudes towards the employment of children altered slowly, with the result that increasingly tight restrictions were placed on their employment, or they were discouraged from leaving school to engage in the potato harvest, and when they were, there were increasing restrictions on their employment. The period of study therefore allows an examination of the tensions between education and agriculture for obtaining a supply of child labour. The place of women in agriculture in general also altered, with a general shortage reported, owing to the disinclination for agricultural employment.[42]

After 1870 tensions were noted between labour supply and demand which created problems in securing workers for harvesting the crop. Although sources do not report them every

year, problems increased into the twentieth century, and to particular periods such as the two World Wars when the acreage under the crop was greatly increased, and to the period after the Second World War. By the 1950s problems of obtaining labour are particularly noted by farmers, which continued in following decades. Such problems are highlighted by the words of David Dandie, who spoke of his experiences during the late 1970s in the Pumpherston area of West Lothian:

> It was a terrible disaster in the morning you know if you'd been working with 25 and 30 people the night before and 10 or 12 turned out the next morning. It was a bit of a disaster ... latterly it did happen. Squads became that hard to get you see. There were other merchants poaching and they'd go for another shilling a day, so they just went for that shilling. The squads got wise. It was just ransom. I mean it didnae stop at one shilling. It was a shilling, a shilling, a shilling, a shilling, five shillings. You know it got out of hand.[43]

Thus, implements which were more efficient at uncovering the potatoes from the drill in which they grew were adopted and used throughout the period. While seen in the adoption of the spinner digger and the elevator digger in the second half of the twentieth century, it was particularly evident in the complete mechanisation of the digging process with the complete harvester.

(4) As new implements were introduced and adopted to harvest the potato crop, there was a greater change in harvesting techniques during the period after 1870 than there was during

the preceding period when the potato was grown as a field crop in the Lothians. However, while some techniques and practices altered as a result of the adoption of new implements, and other factors such as the introduction of tractor power, some of the older ones continued to be used well into the twentieth century. Thus, during the period there exists a mixture of old techniques which continued to be used or which died out during the period, and new ones introduced and adopted. By extending the time scale of the study into the 1990s, when few squads were employed, harvesting techniques could still be observed at a time when they had largely died out.

SOURCES OF EVIDENCE AND METHODOLOGY

Although there are few major studies on the potato harvest, there is a diverse body of evidence which refers to it. However, most sources only describe the potato harvest very briefly, or only make a passing comment. Because of the fragmentary nature of the evidence, recourse was made to a wide variety of sources, written, printed, oral and photographic (Bibliography). These can be classified according to five main groups of evidence:

(1) Archival material from local archives throughout the Lothians and national ones in both Scotland and Ireland. All provided a diverse range of material from Scottish and Irish government departments, Local Authority records, estate papers, farm records, sound recordings, photographic illustrations and questionnaires.

Much of the material was of an official nature, written by people who held some authority, whether on a farm, school, Local Authority or government department. Although this would suggest that the documentation was written by people who did not have close contact with the potato harvest, many in fact observed the harvest and even participated in it. While the documentation refers to the harvest itself, some of the papers also comment upon factors which led to problems of obtaining a supply of labour, and also to changes in employment conditions. Because of the great detail offered by the diverse range of archival sources, which also provide the only evidence for some aspects of the potato harvest for much of the period of the study, they form the basis of evidence for the thesis.

(2) Archive sources were augmented by a range of published material, which included academic journals, Parliamentary Papers and newspapers. They provided both historical accounts of the potato harvest as well as contemporary ones, not only of the Lothians but also other counties in Scotland.

(3) Personal experiences of employment at the potato harvest from the 1980s to 1995 were drawn upon. Work was undertaken on my father's farm, Pilmuir, Balerno, throughout the period. Experience was gained with squads of children until the early 1980s, and then with a mechanical harvester. Additionally, in October 1990 I obtained casual work with a squad of adults at Hermiston, Currie. Each gave valuable insights of what it was like to work at the potato harvest and the contrasts between harvesting with squads and mechanical harvesters.

(4) Field observation was undertaken during the early 1990s when the thesis was written. Where the crop was still gathered by hand, squads of children and adults were observed gathering it. As most crops were mechanically harvested, visits were also made to farms in the Lothians where machinery was seen at work. Additionally, as a range of harvester types were employed, visits were made to two of the International Harvester Demonstrations held by the Potato Marketing Board in Spilsby, Lincolnshire in September 1991 and Acaster, Yorkshire in September 1994 to see them at work. As the performance of mechanical harvesters was improved with the introduction of stone and clod separation, a process of separating the stones and clods from the seedbed at planting time was observed at Pilmuir, Balerno, and a visit was made to a demonstration of potato planting held by the Potato Marketing Board in Nottinghamshire in 1993, to observe planting techniques.

(5) Oral sources were consulted to gain evidence on harvesting techniques, labour supply and employment conditions. They included the tape transcriptions and notes from the oral recordings collected by Anne O'Dowd of the National Museums of Ireland, which dealt with the squads of Irish migratory workers from Co. Mayo. For native Scottish workers, a radio broadcast of Ian MacDougall's field recording was consulted, and a small number of tapes in the archives of the School of Scottish Studies, University of Edinburgh. When examining these sources it became evident that there was very little material which referred specifically to the Lothians and so field collection was undertaken to fill a gap in the evidence. Interviews were conducted with

farmers, farmers' wives and potato merchants throughout the area whose voice has generally been absent from previous studies. All had first-hand experience in working with squads and in harvesting the crop. As employers, they could comment on labour trends and particular employment conditions, and any changes in them, over a period of years. The informants could recollect their own experiences as well as those of their parents during the period from the 1930s until the 1995 harvest. These recordings had a two-fold role in the thesis: they provided additional details about the potato harvest which were only briefly commented upon in documentary sources; they described aspects of the harvest not reported in any other sources, thus providing the only documentation available for some material.

PART 2: LABOUR SUPPLY FOR THE POTATO HARVEST

CHAPTER 2: LABOUR REQUIREMENTS

Compared to other crops, the potato was very labour intensive to grow and harvest, even until well into the twentieth century. In 1927 Thomas MacIntosh notes how "potatoes require one and two-third times the amount of manual labour necessary for the same area of roots and cabbages, four times for cereals, and ten times for hay."[1] Of that labour, much was required for harvesting.[2] Because of the labour requirements, the farm labour force was not large enough to undertake the work and even where small acreages were grown, additional workers had to be employed. These were casual workers, persons employed for a short period of time, from part of a day to a few days or longer.[3] These workers were organised into squads, or groups, which varied in size over time and from employer to employer.[4] While some only comprised eight workers, others had sixty or more (Table 2.1). Many squads had between 20 to 30 workers.

TABLE 2.1. SIZE OF SQUADS OF CASUAL WORKERS EMPLOYED ON PARTICULAR FARMS IN THE LOTHAINS DURING THE LATE NINETEENTH AND TWENTIETH CENTURIES

Date	Farm	Size of Squad of Casual Labour
1887	Hardengreen, Newbattle	44
1970s to 1985	Wester Cowden, Dalkeith	20 to 25
Until mid 1970s	Dolphingstone, Tranent	25
1950s	Upper Dean Park, Balerno	8
1950s and 1960s	Pilmuir, Balerno	40 to 60
Mid 1970s	Coxydene, Wilkieston	8 or 10
From 1940s	Learielaw, Pumpherston	20 to 25
From late 1930s	Barbachlaw, Wallyford	20

Source: Field notes, N. Millar, East Coxydene, Wilkieston, 12 July 1995; Field recording, J. Braes, Barbachlaw, Wallyford, 17 July 1995; Field recording, D. Dandie, Learielaw, Pumpherston, 24 July 1995; Field recording, J. Fleming, Upper Dean Park, Balerno, 20 July 1995; Field recording, A. Hastie, Dolphingstone, Tranent, 25 July 1995; Field recording, R. M. Holmes, Pilmuir, Balerno, 10 November 1994; Field recording, J. Peace, Carberry Mains, Musselburgh, 21 July 1995; SRO, GD40/8/339, bundle 31, item 1887.

Employers required their squads to be a particular size. As the harvest had to be gathered as quickly as possible, a specific number of workers had to be recruited who could handle the acreage grown. Thus, where more extensive acreages were grown, squads were larger in size.[5] The squad had also to be capable of working to the capacity of the harvesting system which was

employed, and to work as efficiently as possible. John Galloway comments that:

> I think the most profitable size of squad was about twenty, twenty-two. You would get far more output of a squad that size per person like than if you went up to a squad of thirty, thirty-two. Your digger [spinner] could just not keep up to get the same output with a squad of thirty-two than a squad say of twenty-two. Once you came down to a squad of fourteen or fifteen it was the other way again of course. It was too small.[6]

Where implements were less effective at uncovering the potatoes from the drill in which they grew, more workers had to be employed. Not all types of worker were capable of undertaking the same amount of work, or even within a squad. It was generally stated that children should only undertake two-thirds of the amount of work of an adult.[7] Particular types of adult workers were also of a higher quality than others. Irish migratory workers were considered to be higher ranking than unemployed workers from the towns and sometimes also other native Scottish workers.[8] Thus, where workers were of a poorer quality, they could not achieve the same work output.[9]

LABOUR REQUIREMENTS THROUGHOUT THE LOTHIANS

Although a few statistics of the sizes of squads are available from farm papers, estate papers and oral recollections, there are

none which show the total amount of labour required for harvesting the potato crop in the Lothians. Nevertheless, it is known that labour requirements altered throughout the period 1870 to 1995. These were from year to year, within a run of years and throughout longer periods. Labour requirements varied between the actual number of workers employed and in the number of man-hours, that is the number of hours one person is required to undertake a task.

Variations in the amount of labour employed were caused by a number of factors. As a certain number of man-hours were required to harvest each acre, increases or decreases in the size of the acreage grown had an effect on the labour requirements. Where a larger acreage was grown, more labour was required, and where smaller acreages, less (Appendix 1). However, not every acre required the same amount of labour to harvest, owing to the condition of the crop and also to soil conditions at the time of harvesting. Crop yield was related to the number of man-hours required to harvest the crop. Where a heavier yielding crop was to be harvested, more were required than for a lighter crop where fewer, and smaller, potatoes had to be gathered from the ground. Where the fungal disease or blight, Phytophthora infestans, was prevalent, farmers in the late nineteenth and twentieth centuries would get the gatherers to separate the sound potatoes from the diseased ones at the time they gathered so the disease did not spread further during storage, and therefore a greater number of man-hours were required.[10] At harvesting time the soil conditions affected the speed at which the digger could work and also the rate at which the potatoes could be gathered. Where the soil was

sticky, it was desirable that as much soil should be removed from the potatoes as possible so they would store well. Therefore, work was slower to undertake and more labour intensive.[11]

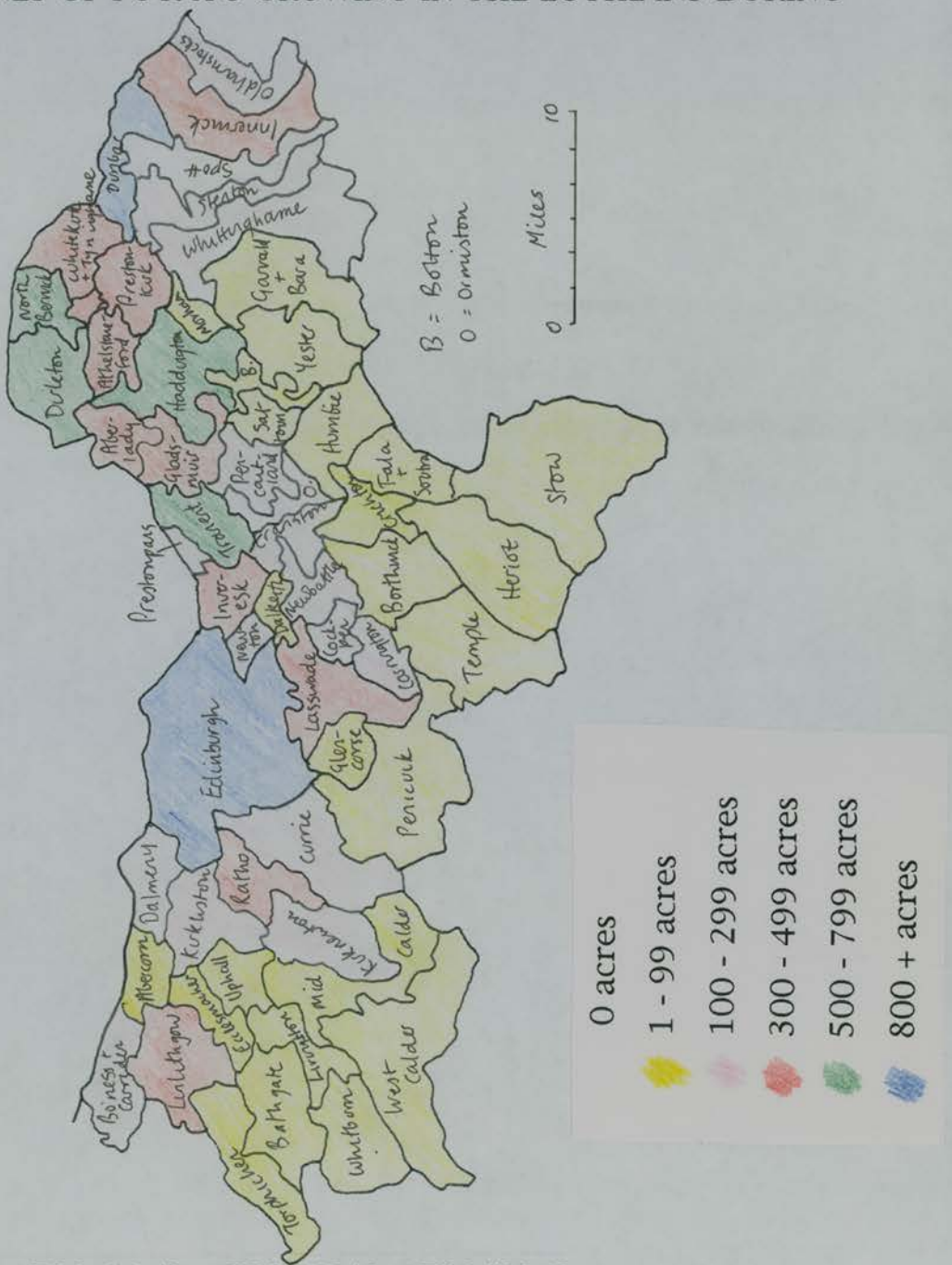
Labour requirements were also affected by the implements used to uncover the potatoes, as each required varying amounts to work successfully. Perhaps most labour intensive of all was the potato graip, followed by the potato plough, then the spinner, the elevator digger and the mechanical harvester, which required very little labour; sometimes no workers were employed to separate any stones, clods and shaws or haulm from the potatoes.[12] Therefore, with the adoption and widespread use of mechanical harvesters, large squads were no longer required and labour requirements fell. However, labour continued to be required in the late 1980s and early 1990s, as a small number of farmers and potato merchants continued to employ squads, rather than harvesting the crop mechanically.[13]

DISTRIBUTION OF POTATO GROWING IN THE LOTHIANS AND ITS RELATION TO LABOUR REQUIREMENTS

Across the Lothians, as in any county where potatoes are grown, the distribution of the potato acreage is uneven, with extensive acreages grown in some parishes and few in others. From 1870 until after the Second World War of 1939 to 1945, potato growing was extensive in an area along the coast from Queensferry in the west to Dunbar in the east, and inland to the parishes surrounding Edinburgh.[14] Further inland, the acreages generally decreased. In the upland parishes there was only a

very limited acreage. Although some parishes continued to grow in importance, and others declined, the areas of intense cultivation largely remained the same (Fig. 2.1).[15] Thus, where the largest acreages were found, the greatest amount of labour was required for harvesting the crop.

FIG. 2.1. ZONES OF POTATO GROWING IN THE LOTHIANS DURING 1890

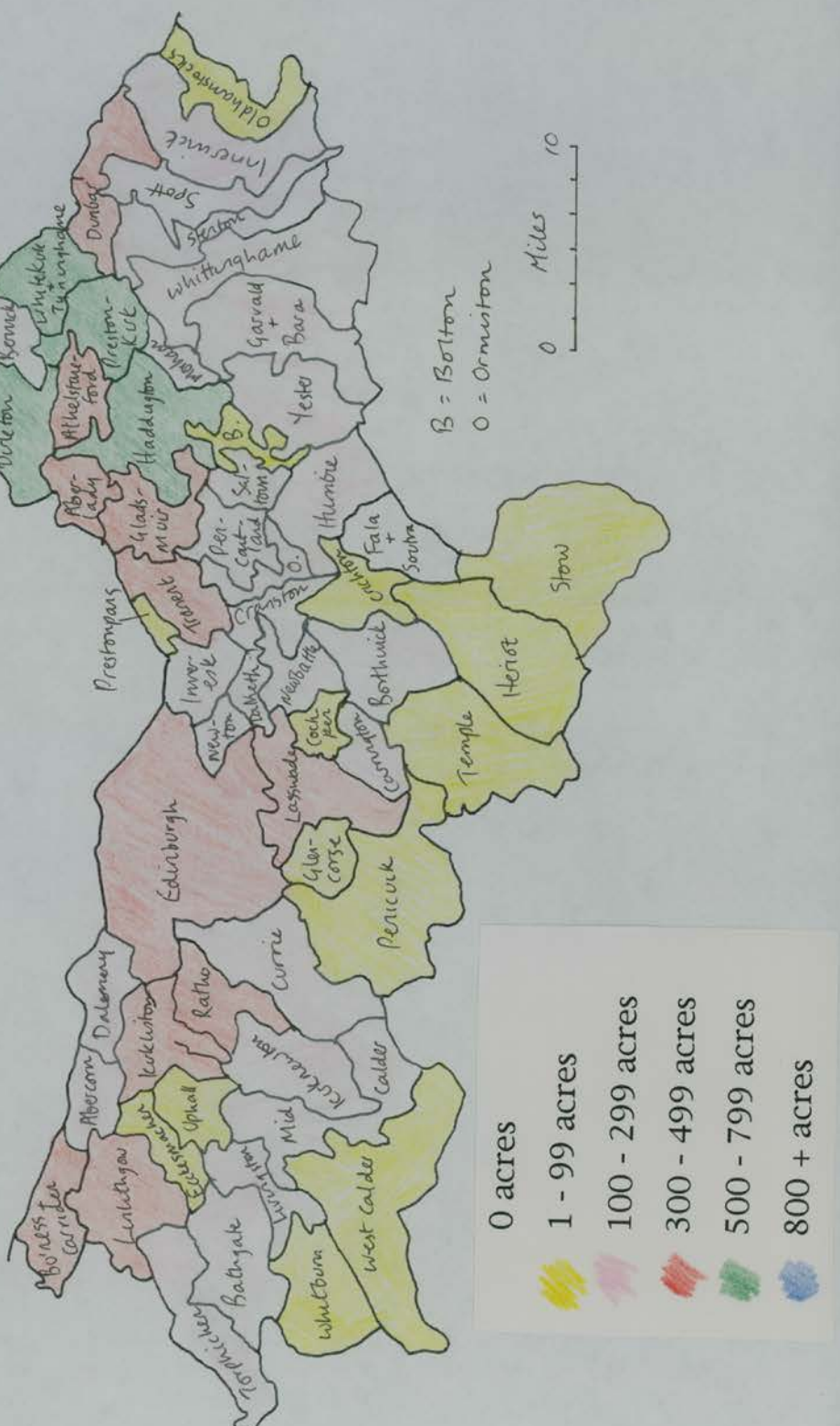


Source: SRO, AF39/11/2; AF39/15/1; AF39/21/2.

However, the traditional distribution of potato growing was largely eroded after the Second World War as a result of the declining potato acreage and the increasingly specialist nature of potato growing (Appendix 1). Fig. 2.2 shows that in 1965 three trends were evident in the distribution of the potato acreage: (1) Most of the largest acreages continued to be found along the coastal area. (2) In areas which were further inland, some of the areas which had been of importance had greatly declined to the extent that very few acres were grown. (3) For the first time since the June Returns recorded the acreage on each agricultural holding over one acre in 1866, potatoes were no longer grown as a field crop in some parishes, which were usually less important for growing the crop.

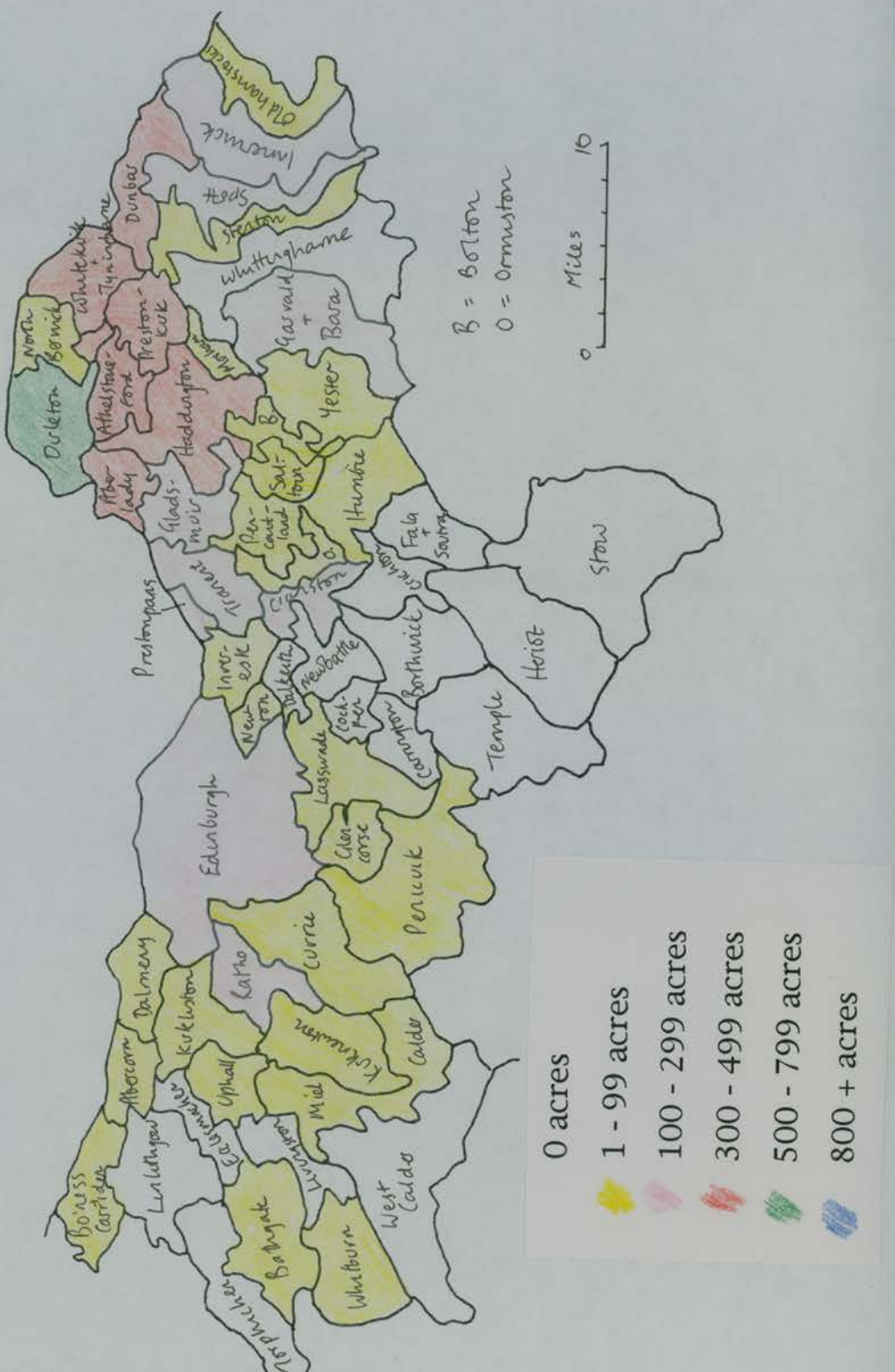
By 1990, the traditional picture was distorted even further as a result of the specialised nature of potato growing (Fig. 2.3). No potatoes were grown as a field crop in one parish in East Lothian, eight in Midlothian and four in West Lothian.

FIG. 2.2. DISTRIBUTION OF POTATO GROWING IN THE LOTHIANS DURING 1965



Source: SRO, AF40/54/2.

FIG. 2.3. DISTRIBUTION OF POTATO GROWING IN THE LOTHIANS DURING 1990



Source: SRO, AF40/79/4; AF40/79/6.

Although the above statistics cover the total acreage grown on agricultural units over one acre in each parish, they do not reveal the distribution of types of potato growing found in the Lothians. As in all areas where potatoes were grown, three classes of potato were grown: first earlies, varieties which reached early maturity; second earlies, varieties which reached maturity after the first class; and maincrops, varieties which were usually harvested in October, and were the last to reach maturity.

Of the three classes, the cultivation of the first earlies was the most specialised of all. Crops required to be grown in low lying areas, usually coastal, with warm conditions to enable the crop to grow and reach maturity as quickly as possible so that it could be harvested at an early date. In 1944, the first year the June Returns record the acreage of first earlies, concentrations are noted in East Lothian at Aberlady, Dirleton, Gladsmuir, Tranent, Prestonkirk, Whitekirk, Prestonpans and Athelstaneford. In Midlothian the most extensive acreages were at Carrington, Inveresk and Lasswade. Although there was only a fairly limited extent in West Lothian, the greatest concentrations were found at Abercorn and Dalmeny. Outwith these areas the acreage was more limited and in the upper lying districts few acres or none at all were grown.[16] Conversely, as the maincrop did not require special growing conditions it was grown everywhere, and also formed the bulk of the crop grown.

The distribution of the types of potatoes grown had an effect on the labour requirements for harvesting. Where first earlies were grown, labour was required from the last week of June or early July in the Lothians, a time which was later than in Ayrshire

and Wigtownshire where the earliest crops were harvested.[17] However, as the first earlies did not form the bulk of the crop grown in the Lothians, much of the crop was harvested after 31 July. After that date, most of the labour was required during the few weeks from the end of September until mid October, and continued in smaller amounts until November.[18] In East Lothian in 1954, this amounted to 78.3% of the total potato crop; in Midlothian and West Lothian 86% and 89.8% respectively.[19] Great pressure could be, and was, placed upon the supply of workers, and in some areas employers had to wait until others had completed their harvest before they could start work.[20]

While the time of the harvest had an effect on the labour so too did the length of time over which workers were employed, and on individual farms. On some farms where first earlies through to maincrops were grown, the harvest extended for a number of months. At Dolphingstone at Tranent, the first earlies were harvested over a month and the maincrops harvested over two weeks during October while at Freelands, Ratho, workers were employed for six weeks to harvest the second earlies.[21] For the maincrops the harvest lasted from a few days, to a number of weekends, ten days, two weeks or longer.[22] While variations for the maincrop harvest were primarily caused by the acreage to be harvested, the length of the harvest at an individual farm could vary according to the weather and harvesting conditions.[23] When the weather was inclement the harvesting period lasted longer as the main crop could not be harvested as it would not store well.[24] Additionally, it was not always possible to harvest on some of the working days because of the weather. If maincrops were

harvested in the rain they would not store well during the autumn, winter and spring months. Harvesting could not therefore proceed in the rain and work was called off. If the weather "cleared up," it was not always possible to organise a squad to start work in the afternoon. As a result, work did not usually start again until the following morning.[25]

CONCLUSION

The demand for labour for harvesting the potato crop was complex throughout the Lothians. Labour demands varied according to the size of acreage grown by individual growers, the total acreage grown in an area, the state of the crop, harvesting conditions, the techniques used to harvest the crop and implement used to uncover the potatoes. Across the Lothians there existed a greater demand for labour in areas where extensive acreages were grown than in ones where it was only small. Labour was required at different times during the harvesting season which ran from late June or early July to the end of October or even November. Most, however, was required for the maincrop harvest which also formed the largest acreage grown.

CHAPTER 3: SOURCES FOR OBTAINING A SUPPLY OF LABOUR

As noted in the Introduction, a large supply of labour was employed to harvest the potato crop. As it was required by many employers during a short period of time, recourse had to be had to a number of sources so that a sufficient supply could be obtained. This chapter looks at the sources from which employers in the Lothians drew all their labour, including the local women, children and Irish migratory workers.

SOURCES OF LABOUR

Although some squads comprised a mixture of workers from differing social and economic backgrounds, the workers were obtained from four main sources: (1) within the agricultural community; (2) villages, towns and urban areas; (3) migratory workers brought into the Lothians from other areas; (4) workers organised during times of crisis such as the two World Wars of the twentieth century. Each had its own role for supplying labour in the Lothians.

(1) THE AGRICULTURAL COMMUNITY

For the farmer, the most immediate source of labour was from his own regular farm force of farm servants employed throughout the year, comprising ploughmen (later tractormen),

cattlemen, orramen and women, both employed as field workers (outworkers) and at other work.[1] On some farms their number was large, especially in East Lothian where workers were hired on the family system, so that when a man was engaged for service he was hired with his wife, or another member of his family, to undertake field work or outwork. The system was still widely reported as late as 1936.[2]

Members of the agricultural community were also employed on a casual basis. As not all the members of the farm servant's family were recruited, recourse could be had to them.[3] They included their children, if they were old enough to be released from school or were permitted to leave school during school hours.[4] Outwith East Lothian, and in many agricultural areas of Scotland, the ploughmen's wives were also employed.[5] Other members of the agricultural community could be called upon. In Midlothian during the 1930s they included unemployed farm workers who were given a cottage on condition that they worked when required, and in other areas, estate workers, such as the foresters' men at Whittinghame in 1920.[6]

(2) VILLAGES, TOWNS AND URBAN AREAS

Most of the labour employed for the potato harvest was recruited from outside the agricultural community. Villages, towns and urban areas were important sources, and were depended upon in many parts of the Lothians, as throughout Scotland.[7] Although centres of population could provide much labour, their

distribution was uneven. Some potato growing districts were situated in parishes which had only a relatively small population which could supply very few workers. A scarcity of workers was reported for example at Blackshields in the Dalkeith area during 1928, where one farmer "had to resort to the expedient of lifting his potato crop on Saturdays, when the school children can be got, and on that farm the area of potatoes planted has to be restricted because of the difficulty in securing the crop."[8] In others, there was a surplus or excess which could have been employed if harvesting work was available. However, even where labour was available, the character of a settlement had a great influence on the amount of labour inclined to work at the potato harvest. The words of Dr John McVail, Sanitary Inspector for Dumbartonshire, writing of the distribution of labour in that county in 1907, are equally true of the Lothians:

> In some areas the population may be largely residential, and manual labour out of the question, or the inhabitants may be of the respectable labouring class, which looks on potato digging as a mean pursuit. In other areas the population may be more inclined to the work: it may be a poor population dispersed in villages, and its interests may be agricultural; it may be an unstable population in irregular employment, or it may comprise numerous families of the mining class, whose female members are willing to take work in the fields.[9]

In the Lothians the character of villages and towns also had a great effect on the supply of workers. As MacVail suggests, the

mining areas were particularly sought after for supplying labour, and in the Lothians, Prestonpans, Whitecraig, Wallyford, Tranent, Gorebridge, Fauldhouse and Blackburn were noted for the employment of miners' wives.[10] Fishing communities such as Dunbar in East Lothian were also valued, as were others in other areas of Scotland.[11] Particular areas of villages, towns and cities were also regarded as good sources for labour which could also be of a very good quality. They included working class districts and council house schemes. Oral evidence from Balerno in Midlothian notes how many of the workers, and especially the better quality ones, were drawn from the council housing scheme of Deanpark.[12] However, even where labour was available, some people would not make themselves available for work. They may have thought it too menial or below their social standing and would not be seen employed in the fields. Such could be illustrated in the Broxburn area of West Lothian:

> You couldn't get anyone from Broxburn. They wouldn't lift tatties. Well, I think probably there would be a difference from the shale industry to the mining industry. The shale miners were probably that wee bit better off and they probably weren't that hungry for a pound, for shillings and I think that was one of the reasons.[13]

Other factors, such as the employment structure of a settlement, affected the supply of labour in an area. Where local industries employed women, they could not engage in casual agricultural work, even though they may have wanted to undertake it.[14]

As villages and towns could not always supply a sufficient number of workers to meet the demand for labour around them, recourse could be made to workers from other localities. Workers could be transported from one area where there was a large supply of workers, and a surplus, to another, where there was a shortage. While they were sometimes only transported over short distances, others were taken from one district to another, or even across a county.[15] When they were moved over longer distances they were usually only taken by labour contractors, potato merchants, or where labour was organised during times of crisis such as the Second World War and the following years.[16] Additionally, as some merchants and contractors came from outwith the area to harvest crops, they brought their squads with them each day from their home areas.[17]

(3) MIGRATORY WORKERS

As in other parts of Scotland, England, Europe and the United States, migratory workers were employed in the Lothians to undertake harvesting work.[18] Two types were employed, both from Ireland: males, who worked on their own or in a small group at general seasonal agricultural work (Donegal workers), and squads, composed largely of women and youths, who only undertook potato harvesting and dressing or riddling operations (Achill workers).[19] In the Lothians, both types made a very significant contribution to the labour supply, so much so that the area was particularly noted for their use.

(4) WORKERS ORGANISED DURING TIMES OF CRISIS

Although the most important sources for labour were the above sources, others were resorted to for only very short periods during the late nineteenth and twentieth centuries. Because of the great demand for labour in times of national crisis such as the First World War and the Second World War, workers were specially organised and employed until peace-time conditions returned or government schemes to organise seasonal labour for harvesting crops came to an end. Across Scotland, emergency workers included prisoners of war, in both the First World War and the Second World War and until repatriation in 1948, and soldiers released from their military duties.[20] After the Second World War, they also included European voluntary workers.[21] Others were only employed in certain counties or districts throughout Scotland. In the Lothians they included fishing workers, mostly girls, brought from the Hebrides to work in the Dunbar area during 1915.[22]

DISTRIBUTION OF WORKERS

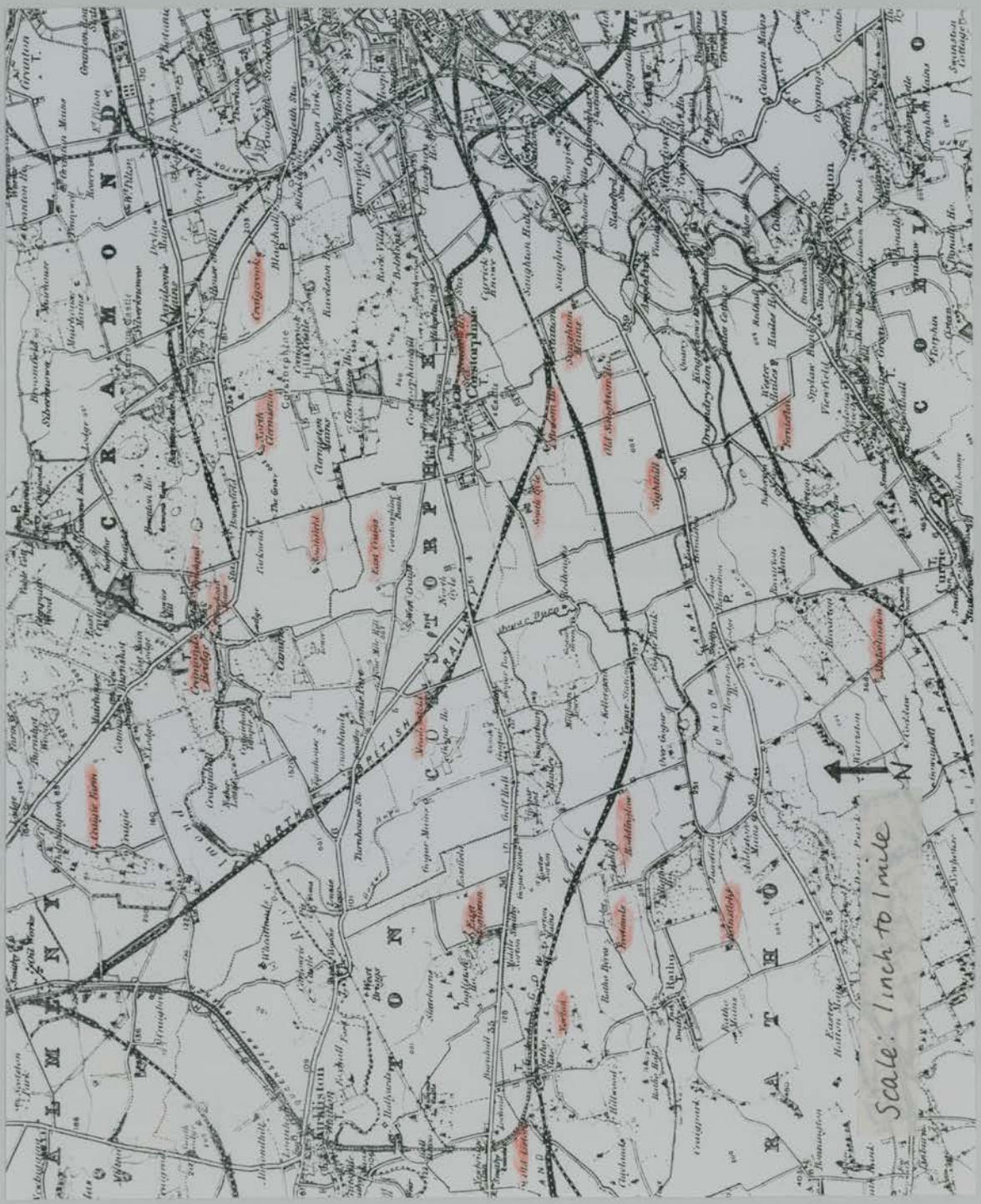
Although the sources from which labour was drawn can be easily classified, the actual use of the labour within a district or across the Lothians was complex. While there is no complete record of the labour employed for harvesting the potato crop during the period of this study, fragmentary records show the distribution and use of particular types of labour in some

parishes. Various patterns can be seen. In some areas only one or two groups of workers from different sources were employed. For example, in the Cranston, Crichton and Fala parishes of Midlothian during 1920 the only labour available was local children.[23] Some types of labour were also found in only particular districts. This can be emphasised by the words of Agnes Tod, who comments on the labour employed in the Heriot area of Midlothian before the outbreak of the First World War:

> The Heriot farmers didnae grow big crops of potatoes, so they just got out their ploughmen's wives and daughters, or boys if they had them, or two or three boys from the school. It was only after I got married and went to live for a time in East Lothian that I encountered seasonal workers - the tattie squads. The women, the miners' wives, generally came from Prestonpans.[24]

Other examples can be noted. Much use was made of the employment of Irish migratory workers in certain districts, such as the Calder District of western Midlothian. Fig. 3.1 shows that in the early 1920s squads were employed on nearly all farms in an area stretching from Old Liston in Kirkliston parish to Saughtonhall in Corstorphine, an area which continued to be important for their employment even into the 1960s.[25] Similarly, in the Lasswade district of Edinburgh during the early 1920s, much use was made of workers who either lived "in the villages or in Edinburgh, and are brought out in char-a-bancs for the day."[26]

FIG. 3.1. EXTENT OF THE EMPLOYMENT OF SQUADS OF IRISH MIGRATORY WORKERS IN THE EDINBURGH DISTRICT AND CALDER DISTRICT OF MIDLOTHIAN



Source: SRO, DD13/1591; DD13/1603, number iv, number viii, number xviii, number xxiii.

In some parishes a mixture of types of workers was employed. For example, in Currie during the 1960s, they included local village workers, unemployed workers transported from Edinburgh, and merchants' squads recruited from Ireland and also from Scottish towns.[27] Where there was such a mixture, there was a complex relationship between the types employed over a number of years so that a supply of labour could be obtained. If one type was not available then another had to be employed. Many examples exist where farmers and potato merchants changed from employing one type to another over a period of years.[28] One such one can be found at Pilmuir, Balerno, during the 1950s, 1960s and 1970s when the local labour supply was declining and the quality of workers was also falling (Table 3.1). Workers were drawn from a number of sources and even within them, there were different kinds of workers employed from children, employed at various times during the week, to local women and a squad hired from a potato merchant. However, when labour became difficult to obtain, recourse was had to unconventional sources to obtain labour such as the use of a church congregation which required funds for a new church hall.[29]

TABLE 3.1. SOURCES FROM WHICH LABOUR WAS DRAWN FOR HARVESTING THE POTATO CROP AT PILMUIR, BALERNO, DURING THE 1950S TO THE EARLY 1980S

Year	Source	Where Obtained From
Early 1950s	Children exempted from school	Balerno
Mid 1950s	Children exempted from school	Loanhead
Late 1950s	Potato merchant	Dennis McCarthy, Burnwynd
Early 1960s	Children employed at weekends	Balerno and Currie
Mid 1970s	Village workers from the local church congregation	Balerno
Mid 1970s	Children were obtained when the church congregation was not available	Balerno and Currie
Early 1980s	Children employed at weekends; some local women	Balerno and Currie
Early 1980s	Crop completely mechanised	

Source: Field recording, R. M. Holmes, Pilmuir, Balerno, 10 November 1994.

FACTORS WHICH AFFECTED THE DISTRIBUTION OF LABOUR

The employment of particular types of workers was determined by a number of factors. The most important was the availability of labour and the ability of employers to easily obtain it locally. Where available in large numbers, there was a heavy dependence on particular types, a fact supported by evidence from oral recordings.[30] However, even though labour was easily obtained in an area, recourse was not always had to it, suggesting there were other factors which had an effect on the use of labour

employed. Employers had personal reasons for employing labour from outwith their local area. Especially where large acreages of potatoes were grown, other types may have been employed so they could obtain a large and steady supply, sometimes for a number of weeks. The skill and ability to clear large acreages of crops meant that certain workers were preferred to others, as they were seen to be of a better quality than others, and therefore more cost effective.[31]

Central to the use of labour was the way it was recruited by employers. Labour could be recruited in a number of ways. Although farmers could find their own supply and directly recruit the workers, they could also hire a labour contractor, a ganger or gaffer, to organise a squad in a practice also undertaken for other casual agricultural work such as vegetable cultivation and harvesting and potato dressing.[32] The use of this system, also known as the ganging system, was common in some districts such as around Tranent, where most of the children released for work during school hours were employed under it. However, in other districts and other parts of Scotland the practice was unknown, or was discontinued because of the difficulty in obtaining casual labour.[33]

Farmers could also hire a squad from a potato merchant who directly recruited it himself or through a gaffer.[34] So great was the part played by potato merchants in harvesting the potato crop that in 1946 they harvested an estimated 62% of the entire Scottish crop.[35] Their squads were usually hired to harvest crops grown or bought when growing in the ground. There were a number of forms of contract between farmers and potato

merchants. The merchant and farmer could work together to grow and harvest the crop: the farmer provided the horse work or tractor work for cultivating the crop, and sometimes for taking the potatoes to the nearest station, and straw for the potato pits; the merchant provided the seed, artificial manure and labour to pit and dress the crop, and undertook to sell it on the market.[36] The ground could also be let to the merchant to grow a crop.[37] The crop could also be sold to the merchant by the acre, that is, while it was still growing in the ground.[38] These contracts were of old origin, and were already "well established" in the Lothians by 1841.[39] As the acreage expanded rapidly from the 1850s to the 1870s they continued to extend. By the 1890s many leading growers across the Lothians sold the crop while still growing, a practice also widespread in other areas, which continued to be so after the Second World War.[40]

A later development of these contracts was the public sale of the crop within a few weeks of harvesting, or when it was ready to harvest, a practice also noted for other crops such as grain and turnips.[41] Crops were grown by farmers, and were to be harvested by the buyer, usually potato merchants, or chains of shops who wanted to obtain a supply of potatoes.[42] Sometimes the farmer had to provide free cartage to the nearest station.[43] As sales were organised on a local level by agricultural markets their extent varied across Scotland, as did their importance. Perhaps the most noted were the sales of first earlies, "the green sale," held in Ayrshire during June and early July.[44] In the Biggar area of Lanarkshire there was also an extensive sale, with up to over 500 acres sold until the late 1950s.[45] Others were also reported

throughout many of the largest potato growing counties of Scotland in the early twentieth century.[46] However, few auctions were reported in the Lothians, and farmers who were interviewed could not recollect the practice.[47] One was held in the Bathgate, Mid Calder, East Calder, Uphall and Broxburn areass by J. and J. Marshall of Bathgate in 1924. The auction must have been a large one as it was attended by potato merchants from across central Scotland: from Edinburgh, Glasgow, Mid Calder, West Calder, Bellshill, Airdrie, Coatbridge, Hamilton, Carluke, Perth and Biggar.[48]

The use of squads obtained from contractors and merchants had a number of advantages for farmers. They could be assured of obtaining a supply of casual labour which was difficult to obtain in some districts, a factor which led to the development of the practice of selling potatoes in the ground and the development of the gang system during the nineteenth century.[49] Indeed, both practices were extended when labour was difficult to obtain, as in the 1930s, when casual labour was employed to fulfil the shortage of farm servants and the 1950s and early 1960s when there was an increasing shortage of casual labour.[50]

The use of merchants' squads also had further advantages for farmers. As the merchant paid to get the crop harvested, he had to bear the high cost of labour and harvesting costs.[51] Additionally, the merchant also had to incur any losses after he bought a crop, through the fungal disease blight or frost, which could affect the quality of the potatoes, and thus their marketability. Perhaps more importantly, the contract also reduced the amount of the speculative risk which the farmer had

in selling his crop. As the merchant bought the crop in the ground, he was responsible for selling it in a market which was essentially volatile, until markets were stabilised with the introduction of the Potato Marketing Board in 1933, which gave an assured market for the crop.[52] Without such a contract, it could be difficult to dispose of the crop when there was an abundant crop and a poor demand in an overstocked market.[53] J. C. Wallace, writing of Lincolnshire, thought the contracts had a very important part to play in potato growing in that area and this may well have had an effect in the Lothians. He suggests that the use of merchants' contracts enabled the farmers to grow the potato crop at times of economic difficulty, such as in the late nineteenth century.[54]

DISTRIBUTION OF LABOUR

As the factors which determined the employment of workers obtained from various sources are complex, it is very difficult to establish a geographical distribution of labour throughout the Lothians. The use of each source, and also of workers from various social and economic backgrounds within that source, had its own supply curve, and thus distribution, which changed over the short term as well as over longer periods due to factors such as the level of unemployment in a district, personal circumstances of workers, the effect of educational regulations and the state of the potato market. Nevertheless, a number of generalisations can be made about the recruitment and use of labour drawn from the sources. Labour obtained from the

agricultural community was usually employed by farmers on all farms. Also widespread was the employment of workers from the villages, towns and some urban areas who were drawn upon as an immediate source of labour by all three employers, farmers, contractors (who were based in villages and towns), and some potato merchants. There were differences in the use of the two types of Irish migratory workers. Donegal workers were also usually employed by farmers. The squads of Irish migratory workers, the Achill workers, were traditionally employed by potato merchants who employed them throughout the entire harvesting season, from the first earlies to the maincrop.[55] When workers were specially recruited in times of crisis, they were selectively employed where there was no alternative labour available.

The workers employed by merchants and contractors were employed over a more limited extent, and only in some areas. They had their customers who sometimes dealt with them for many years, who required labour to harvest the crop.[56] Squads recruited by contractors were found on farms, particularly those with large acreages of potatoes where it may have been difficult to obtain a supply of labour. Indeed, the use of contractors' squads increased during periods when there were shortages of labour. It is unlikely that they were found in many upland areas where the acreage was very limited. As Agnes Tod points out, the labour was drawn from local sources in the parish of Heriot, a statement also supported for other areas in Midlothian.[57] However, if a merchant had a crop there, one of his squads would be taken there to harvest it. As Dr John MacVail notes of Dumbartonshire,

merchants' squads were found in areas where there was a lack of local labour and in others where they were in close proximity to large supplies.[58]

CONCLUSION

All workers recruited for the potato harvest in the Lothians were drawn from four sources: the agricultural community; villages, towns and urban areas; migratory workers; workers organised in times of crisis. The use of these sources was complex. In some districts recourse was made to a variety of sources and types of workers from these, while in others, there was a noted concentration of workers from a particular source. This distribution resulted firstly from the availability of workers in an area and secondly, from the way labour was recruited by employers in an area. Farmers and potato growers recruited workers directly or through another person, a labour contractor or gaffer. Farmers could also engage in a contract with a potato merchant to harvest, and sometimes grow, their crop. In doing so, they could get his crop harvested by a squad supplied by a merchant.

PART 3: HARVESTING TOOLS AND TECHNIQUES

CHAPTER 4: HAND TOOLS AND IMPLEMENTS

During the period 1870 to 1995 various hand tools and implements were used for harvesting the potato crop. By 1870 the most important were already patented or in use. Others, originating in the eighteenth century, and the early days of field cultivation, continued in use well into the twentieth century. Although no new hand tools or implements were developed until the introduction of fully mechanised harvesting during the second half of the twentieth century, modifications were made in design, which made them more efficient.

FUNCTION OF HAND TOOLS AND IMPLEMENTS FOR HARVESTING THE POTATO CROP

The function of hand tools and implements for harvesting the potato crop was to free the potatoes from the drill in which they grew so that they could be easily picked up or gathered by hand. This involved two processes: the potatoes were separated from the soil in the drills. The potatoes were then placed on the surface of the soil for gathering. During these two stages, the hand tools and implements had not to bruise or damage the potatoes and on some crops, notably the first earlies, second earlies and some maincrop, they had to be capable of handling the still green shaws or haulm which could be particularly luxuriant in some varieties.

TYPES OF TOOLS

Tools for harvesting the potato crop were of two kinds: those worked by hand, hand tools, and implements, some of them mechanical, drawn by horses, and later, tractors. The latter were of most importance in the Lothians, as in other large potato growing counties, even though hand tools continued to be used well into the twentieth century.

HAND TOOLS

A number of hand tools were used for harvesting the potato crop. In the Lowland areas at an early date, the three-pronged dung fork was used, while the spade was noted during the late nineteenth century.[1] Other implements were confined to other parts of Scotland. In the Hebrides from the eighteenth century onwards, two types, one with an adze blade, the *croman*, the other a hook for scratching the soil, the *crocan*, were used.[2] While specialised tools were confined to particular geographic areas, others were not. The most widespread hand tool in the Lothians, throughout Scotland, England, Ireland, and the United States was the fork, "potato graip" or "tattie graip," a short shafted graip, with three or four prongs, flattened to prevent the potatoes from being damaged (Fig. 4.1).[3]

FIG. 4.1. POTATO GRAIP

Source: Pilmuir Farm, Balerno.

During the period from the late eighteenth to the twentieth century the use of the graip altered. In the eighteenth and the first half of the nineteenth century the graip was employed to harvest all crops, from first earlies through to maincrops.[4] Even though it was used to a great extent in some areas such as West Lothian, some agricultural writers note how at that time it was

confined to small-scale production.[5] Nevertheless, by the 1850s it was still "probably the most common" method for harvesting the crop.[6] Even as late as 1877 one writer regards the graip as "the most satisfactory method adopted" in Midlothian and West Lothian.[7]

However, the use of the graip started to become more confined. Its main function was for harvesting potatoes before digging for storage started in October. In the Lothians it was "seldom used to any great extent in raising the matured crops."[8] The graip became closely identified with harvesting crops of first early and second early varieties, which posed special problems as the immature potatoes were easily damaged, and the shaw, which was still green and vigorous at time of harvesting, was difficult to handle with ploughs or mechanical implements.[9] Even well into the twentieth century the graip continued to be used primarily for harvesting first earlies and second earlies.[10] Even after the end of the Second World War Sean Ó Ciaráin notes it for that purpose in Wigtownshire.[11] Field recordings for the Lothians also show that it was still used during the 1950s. However, its use died out during that decade.[12]

In the twentieth century the graip also had other, though very limited, uses. It could open up a field for harvesting the maincrop so that it could be made ready for mechanical implements to operate.[13] This was a practice paralleled where newer types of technology were employed alongside older ones, as for instance at the grain harvest. In the early years when the reaper was used, scythes opened up fields.[14]

There were factors which made the graip a specialised harvesting tool by the twentieth century. As it was highly labour intensive, requiring perhaps six or seven couples, or twelve or fourteen workers per acre per day, it was therefore expensive to work with.[15] As work with that tool was also slow, it was impracticable to use where there was only a short time available to harvest the large acreages of main crop.

The graip, nevertheless, continued to be regarded as a satisfactory harvesting tool. It could gently handle crops of first earlies with their tender skins. Indeed, agricultural writers regard it as the "preferable" tool for lifting potatoes where they were immature.[16] It was also capable of handling the green shaw still found on the first earlies and second earlies which may not have been easily lifted using the plough or mechanical implements. It was also a more complete, "most satisfactory" or "expedious" method of harvesting potatoes, as it could uncover a greater number: "men with suitable forks will get up practically everything, as they do in their own gardens."[17]

IMPLEMENTS

Although many types of implements were used in Britain and Europe for harvesting the potato crop only three were of importance in the Lothians as throughout Scotland and Britain, until the crop could be mechanically harvested by the complete harvester during the second half of the twentieth century.[18] These were the potato plough, the spinner digger and the elevator

digger. Though all three worked on different principles, there were similarities in methods employed by them all. To undertake the first stage of the harvesting process - loosen the drill in which the potatoes grew - each implement had a share which passed under the potatoes in the drill. For the second stage - separating the potatoes from the soil and other contents in the drill - each had its own method. The plough passed the drill over a mould board, iron bars, or over a set of prongs which forced the soil between them, so the potatoes were left on the surface of the soil. The spinner employed a set of revolving tines to strike the drill at right angles and scattered it and its contents to one side. With the elevator digger the drill was passed over an elevator consisting of a chain of rods so that the soil fell through the elevator and the potatoes were passed over it, and dropped onto the soil behind the digger.

POTATO PLOUGH: ADOPTION AND USE

The potato plough was the earliest implement developed for harvesting the potato crop. It is commented upon by agricultural writers such as Lord Kames in the 1770s, who advocated it "for raising potatoes in quantities."[19] By the late eighteenth century and the early nineteenth century it was the usual implement and was widespread across Scotland, although at that time the graip was also widespread.[20] As late as the 1890s, it was preferred to the spinner, and it remained the most widely used implement throughout the Lothians and many other counties.[21]

The potato plough continued to be used into the twentieth century.[22] However, it slowly declined. Although it was "less commonly used than formerly" in 1910, and was employed on farms in the Lothians after that date, by the end of the Second World War, Redcliffe Salaman comments how it had declined, and that it was "not today much used on the great potato farms of East Anglia, or in the potato areas of Eastern Scotland."[23] Although most farmers interviewed in the Lothians had not seen the potato plough at work in that area it was found in other parts of Scotland and England, as late as 1980.[24]

Both the adoption and decline of the potato plough are linked to its ability to uncover potatoes when other implements were available to undertake the same work. In the eighteenth century it was less favoured than the graip, and agricultural writers view it as a less "convenient implement." Similar criticisms are also noted at a later date.[25] The plough was less efficient at uncovering the potatoes, and made the work more difficult for the gatherers or pickers. As not all the potatoes were uncovered, Stephens suggests that a man be employed to fork out the ploughed drills to expose those which were still buried.[26] If this was not done, it was necessary to use other means, such as harrowing the soil, to bring the potatoes to the surface. Harrowing or grubbing was thus an essential part of the harvesting process.[27] Additionally, in adverse conditions or where the soil type was heavy, the plough would turn the drill over whole leaving the potatoes still encased within it, making it difficult to pick them; J. R. Bond thus suggests that it should only be used on light free soils.[28]

The plough had a number of advantages over the graip. The crop could be harvested in a shorter period of time and it could therefore be used to successfully harvest potatoes on a large scale.[29] As the plough required less labour than the graip, it was seen as a labour saving device.[30] Although the number of gatherers required varied according to soil type - heavier soils and adverse conditions requiring a larger workforce - the plough required "at least sixteen people to shake the potatoes from the earth, to gather, and to carry them to the cart, or to heaps in the field."[31] However, when other labour saving implements became available, they were preferred to the plough.

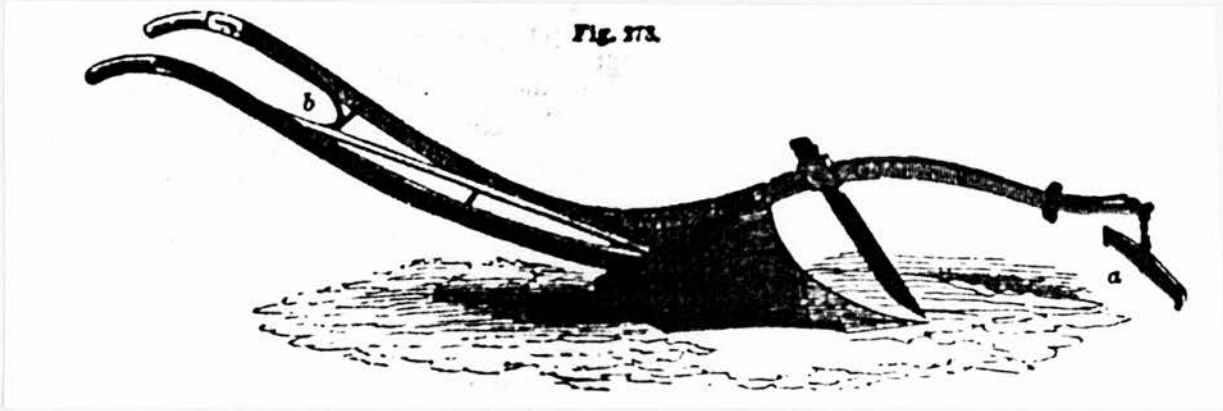
Nevertheless, the plough had a number of advantages over mechanical implements such as the spinner, which allowed for its continued use into the twentieth century. Unlike the earliest mechanical devices, the plough handled the potatoes very gently, reducing damage, an important consideration where potatoes were to be stored, and where they were to be sold for a high quality market. Because of this latter factor, farmers on the red soil farms at Dunbar which grew potatoes for the London market retained the plough for a longer period than other areas.[32]

POTATO PLOUGH: PLOUGH TYPES

Although the term "potato plough" describes a plough which divided a potato drill to expose the potatoes contained within it, a number of types of ploughs were employed to undertake this work. The earliest was the common plough which had the coulter

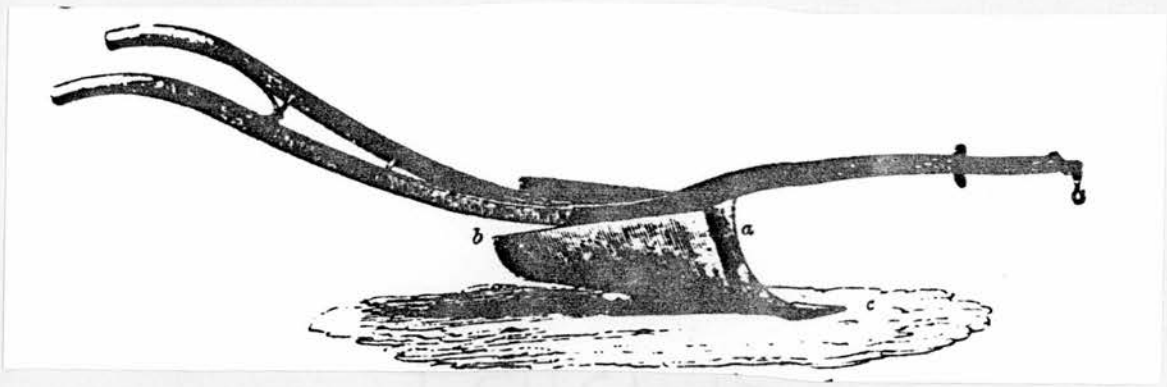
removed so that it did not cut or damage the potatoes (Fig. 4.2) and the double mould-board plough, used primarily for forming drills when the crop was planted (Fig. 4.3).[33] Later modifications were introduced. During the 1840s and the 1850s the brander was developed by Mr Lawson of Elgin, which substituted a frame of six malleable-iron bars for the mould-board (Fig. 4.4) and the plough-graip.[34] The latter was a modified double mould-board type which had a graip of fingers which inclined upwards and were attached to its sole (Fig. 4.5).[35] Further modifications were made to the plough graip which included the use of a revolving rake behind the mould-board to throw the potatoes to the side out of the drill as the plough turned it over.[36] These modifications allowed the plough to work more efficiently in separating the soil from the potatoes.

FIG. 4.2. COMMON PLOUGH (WITH COULTER)



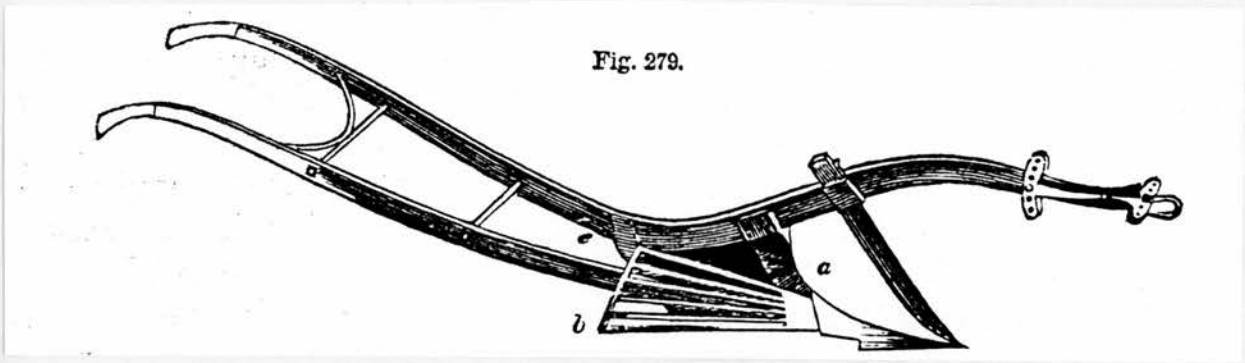
Source: James Slight and R. Scott Burn, The Book of Farm Implements and Machines (Edinburgh: William Blackwood and Sons, 1858), p. 198.
The coulter was removed to prevent the potatoes from being damaged.

FIG 4.3. DOUBLE MOULD-BOARD PLOUGH



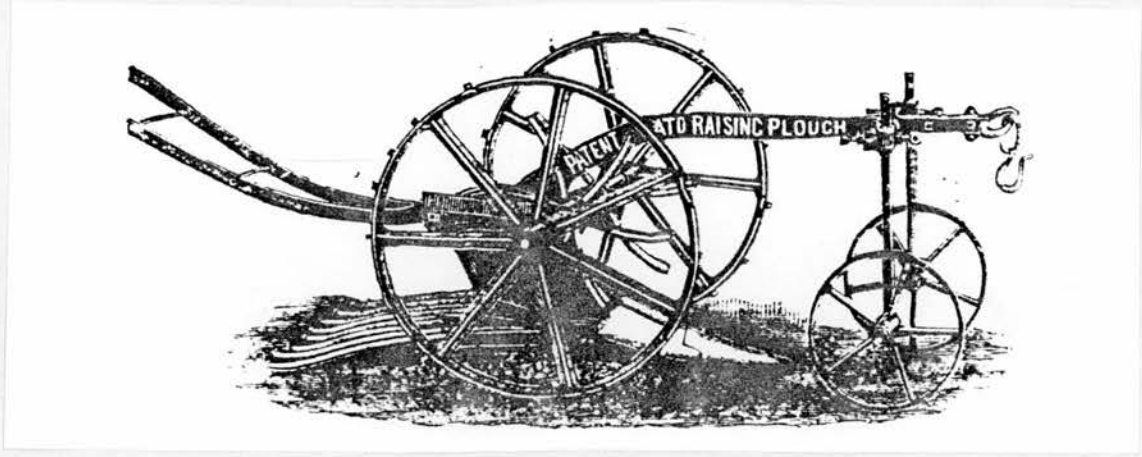
Source: James Slight and R. Scott Burn, p. 199.

FIG. 4.4. PLOUGH WITH BRANDER



Source: Henry Stephens, The Book of the Farm, 3rd ed. (Edinburgh, William Blackwood and Sons, 1871), p. 359.

FIG. 4.5. PLOUGH-GRAIP



Source: James Slight and R. Scott Burn, pp. 202-203.

Certain plough types were better at exposing potatoes than others. The double mould-board plough was "better" than the common plough.[37] Where attachments were placed onto the plough, such as the plough-graip, the potatoes could be uncovered in a more satisfactory manner.[38]

HISTORICAL DEVELOPMENT AND USE OF THE SPINNER DIGGER

The first spinner was patented in 1855 by J. Hanson, a farmer and solicitor from Doagh, County Antrim, and first manufactured in England by Coleman of Chelmsford.[39] In later years it was manufactured by Mr Law Duncan of Shettleston, a firm which distributed it to implement dealers such as A. and J. Main and Co. of Corn Exchange Buildings, Edinburgh.[40] However, there were few manufacturers until the 1870s when Allan of Dunkeld, Wallace and Sons of Glasgow and Bisset and Sons of

Blairgowrie started to manufacture their own designs.[41] In the Lothians at that time there is no record of any implement makers manufacturing it.

During the first decades after the spinner was developed it was adopted to a varying extent throughout Scotland. By the mid 1870s it was "not yet in general use" in either Midlothian or West Lothian.[42] By the early 1880s the Highland and Agricultural Society for Scotland note how there were "many districts in the country where they are comparatively unknown." The Society recommended it for general use, "and to all farmers who cultivate potatoes upon anything like a large scale."[43] It was widely used "on every potato farm" in Angus and Kincardineshire.[44] By the 1890s, there was great interest in the development of more efficient machines, which was reflected in the large number of patents issued for "potato diggers" and in their widespread adoption throughout Scotland.[45] In parts of Fife by mid decade it was as "equally common" as self-binders.[46] For certain models, such as the "Caledonia," manufactured by Jack and Sons of Maybole, there was a high demand, and hundreds were sold in Scotland and exported to Norway, Australia and New Zealand.[47] However, in the Lothians there was a rather different situation. Charles MacDonald's comments suggest that he was surprised that few were used:

> None of the various designs in the market appear to have won anything approaching general favour in the Lothians, although there evidently is a strong desire to possess such an implement.[48]

Nevertheless, there are many indications that farmers in the area were interested in spinners and their development. Machines were bought and used, as at Hardengreen at Newbattle and at Papple Farm, Whittinghame.[49] Farmers and potato merchants were also interested in producing a satisfactory machine. Two local designs were manufactured. One which was developed jointly by Matthew Mathers, Silverknowes, Davidson's Mains, and R. Wallace of John Wallace and Sons Ltd., was manufactured by Messrs Wallace of Glasgow. Another, developed by Andrew Burns, a potato merchant at Wester Norton, Ratho, was manufactured locally by Newlands and Sons of Linlithgow.[50] Prominent farmers including Messrs Mylne of Niddrie Mains and James Hope of East Barns were also involved in judging trials, as were others in later years.[51]

By the early twentieth century local blacksmiths and foundries in the Lothians manufactured the spinner. In West Lothian they included Newlands; in East Lothian David Wilson of East Linton, Prestonkirk and Messrs Thomas Sheriff and Company of West Barns, Dunbar.[52] Other companies sold machines, both of local manufacture and from other parts of Scotland and England.[53]

The spinner became the most widely used implement for harvesting potatoes.[54] In 1944 11,830 were found on agricultural holdings throughout Scotland, amounting to almost 95% of all implements; a similar pattern was also found in England and Wales.[55] By 1948 the number had increased to 14,230 as a result of the large potato acreage grown and the need to harvest the large acreage as speedily as possible, sometimes by employing two spinners on a farm.[56] This may have also resulted from the

increased mechanisation of farms as the spinner was available for use with the tractor.

Although the spinner continued to be the most important implement for harvesting, it slowly gave way to another implement, the elevator digger. While the spinner accounted for 84% of all implements used in 1956, by 1973 it was employed to harvest only 8% of the maincrop grown in Scotland and 9% in 1980.[57] By the 1990s the spinner was uncommon in the Lothians. It was primarily used to harvest crops where no other implements, or the complete harvester, could be used. George Lambert recollects that latterly the spinner was "mainly used for really wet conditions."[58]

During the late twentieth century, very few manufacturers made the spinner. By 1975 there was only one in the whole of Britain, Alexander Newlands and Sons, Ltd., based in West Lothian. While indicating that there was a very limited use of the implement, it also shows that there was still a market to be found in Scotland.[59]

ADOPTION OF THE SPINNER

In its early days, the slow adoption of the spinner may have resulted from the low interest in producing it until the 1870s and the 1880s.[60] Even though many manufacturers were producing machines in the 1890s, some did not have a high output and were "hopelessly oversold," as the demand was too great to meet.[61]

Slow adoption of the spinner may be due to its reputation. Early machines "did not give the satisfaction expected" and caused much damage to the potatoes.[62] James Slight and R. Scot Burn, the noted writers on agricultural implements, were of the opinion that "we should, however, dread injury to the potatoes themselves by this mode of lifting them, by such a violent action of the forks."[63] A trial of spinners held by the Highland and Agricultural Society of Scotland near Perth in 1877 notes that lifting was carried out in a manner which was not "consistent with raising the potatoes in a state to be advantageously stored in pits."[64] Even by the 1890s farmers "could hardly recommend it for potatoes that were intended to be pitted" or stored.[65]

There were other technical problems with the earliest machines. Few could work where the shaws were still growing or had not been destroyed - a problem for which there were many attempts to find a solution.[66] Some machines would not work on "damp soil" thus greatly limiting their use, as harvesting was not always undertaken under favourable conditions.[67] Indeed, trials carried out in 1873 conclude that they were "at present only useful on light soils when very clean." The draught was also heavy.[68]

Although there continued to be problems with the spinner, the quality of work produced improved. At a trial in the 1890s work was "very much superior" to that undertaken nine years earlier.[69] Manufacturers such as Messrs Wallace of Glasgow advertised their "Champion" digger as "thoroughly efficient" while others were advertised for their "clean digging" or their light draught and ease of operation.[70] Even though MacDonald

comments how one farmer was of the opinion that "the present kind [of digger] will need improvement," the improved design must have encouraged some growers to adopt spinners.[71] Nevertheless, although the spinner had a reputation for damaging potatoes for many years, trials and demonstrations as well as personal experience from farmers showed that machines could cause very little, or no damage.[72]

Reasons for adoption may also be attributed to some of the advantages which the spinner had over the potato plough. At the time when the spinner was patented it was seen as an important development and "the work performed has been considered highly satisfactory by those who have witnessed its operation in the field."[73] Unlike the plough, it became capable of working under very difficult harvesting conditions, and on heavy soils.[74] Even though it left potatoes in the ground, it was a more efficient implement, able to uncover more potatoes and give the gatherers an easier task. By the 1890s the harvesting was no longer "the slow and tedious operation of long ago."[75] It was also considered to be a labour saving device, requiring fewer workers to pick behind it than the plough.

The advantage of the spinner as a labour-saving device was recognised as early as the 1850s when it was patented, and at a time when there was a great awareness of employing labour saving devices for cultivating and harvesting other crops. An English source comments how Hanson's machine "must be a very useful implement where a large breadth of potatoes is grown and labour is scarce."[76] Use of the spinner as a labour saving device is supported by Alastair Mutch, writing of south-west Lancashire in

the 1890s. He suggests that the "main interest in potato diggers [the spinner] was the scarcity of casual labour and a desire to reduce costs."[77] Although few agricultural writers comment upon reasons for the adoption of the spinner in the Lothians or in other counties in Scotland, there are clues that labour shortages were an important push factor for its adoption. During the period of the agricultural depression during the 1880s and the 1890s there was a general decline in the availability of casual labourers for harvesting work.[78] In East Lothian, West Lothian, Perthshire and other counties, the number of casual workers employed at the grain harvest declined to a greater extent than that of the regular farm staff employed on six monthly or yearly contracts. There was a decline in the number of Irish employed at the grain harvest and other seasonal work which would have an impact on the numbers employed at the potato harvest.[79] Such would have been of great importance where large numbers had been employed at the grain harvest and then continued to be employed at the potato harvest. Indeed, sources suggest that there were labour shortages in the Lothians. In areas away from the towns and mining villages casual labourers were "hardly to be got at any price."[80] Nevertheless, the spinner could be used to reduce harvesting costs, especially as wages had reached a high level for both males and females by the 1890s.[81] Reducing costs was particularly important where the potato industry was in a depressed state as it had been in the 1890s, when prices had fallen and there was an excess to the demand.[82]

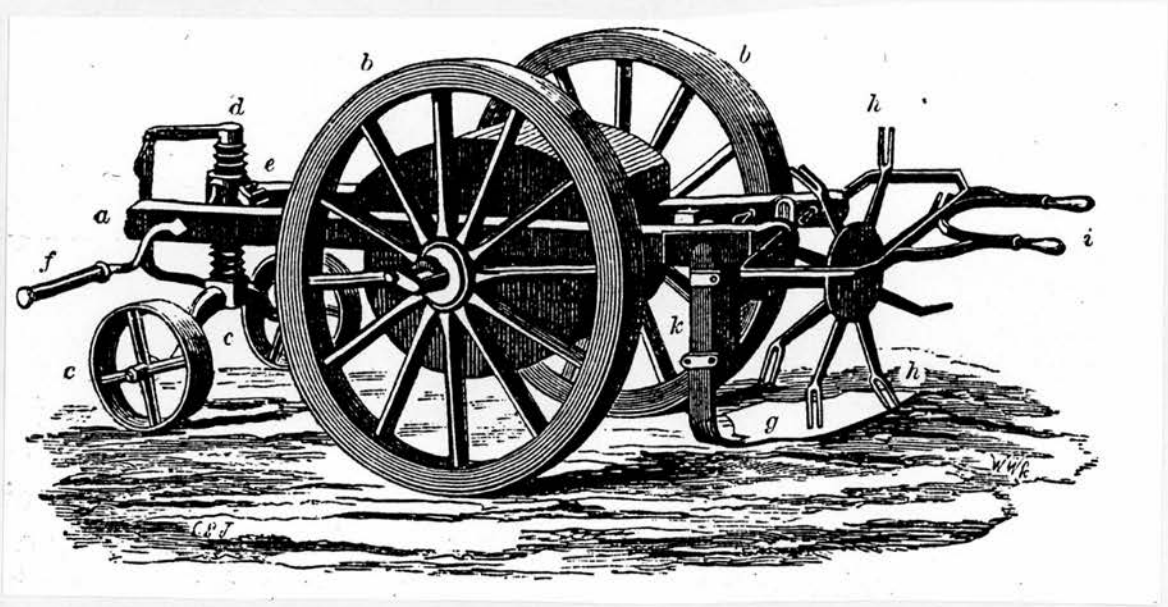
TYPES OF SPINNERS

During the second half of the nineteenth century and the first half of the twentieth century a number of types of spinner were developed, each with its own arrangement of tines for separating the soil from the potatoes in the drill. Three main types can be identified: the Hanson or perpendicular, the horizontal, and the angled horizontal, a modification of the second.

HANSON TYPE

The Hanson type was named after its original designer, J. Hanson, and was therefore the earliest type used. The digging wheel or spinner comprised a number of tines attached vertically on a digger disc which threw the tubers outwards onto the drills which had been newly dug; they were stopped from being thrown too far by attaching a screen to the right-hand side of the digger (Fig. 4.6).

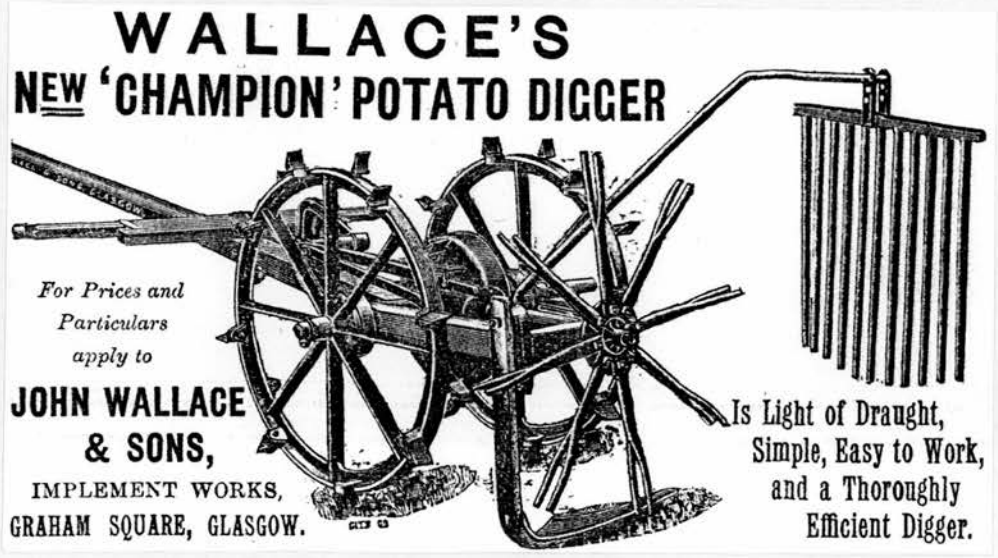
FIG. 4.6. HANSON TYPE OF SPINNER



Source: Slight and Burn, pp. 203.

The Hanson type was also the most widely used. Even though many attempts were taken to improve its design, by the late nineteenth century it "seem[ed] very difficult to surpass" and manufacturers continued to use it and varied details of their design.[83] So successful was it that in 1906 John Speir reports that the spinner had changed little since 1890 (Fig. 4.7).[84] Even in following years, improved digger designs "exhibited [no] distinct advancement as compared with the ordinary type of digger at present in general use."[85]

FIG. 4.7. THE HANSON DESIGN IN THE 1890S



Source: North British Agriculturist, 12 October 1892.

Modifications were made to the slope of the tines on the Hanson principle which made the digging action more effective, and also more gentle on the potatoes. This was achieved through modifying the shape of the tines.[86] In the 1890s the English firm Ransomes, Sims and Jefferies Ltd. of Ipswich developed a method of lifting the potatoes out of the drill rather than knocking them out, as was the usual practice at that time:

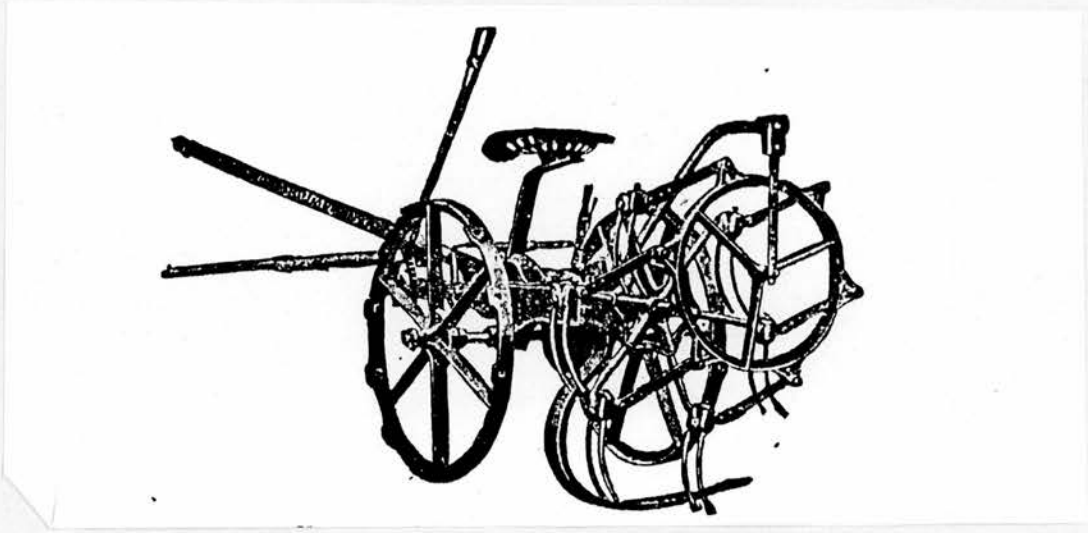
> Instead of the digging tines being rigidly fixed in the rotary wheel, they are at the right moment made to turn partially round. This is accomplished by governing the tines by a cam, giving them a feathering or self-clearing action. The advantage of this is that the tines can be made well hooked to go under and raise the potatoes with the least possible power, and that on coming out of the soil of the feathering action, which then turns the hooked point of the tines downwards and

> backwards, delivers the potatoes on the top of the soil, and frees the tines of the tops and haulms. This action, which is absolutely new, gets over the great difficulty there has always been before, that if the tines were made the right shape for lifting the potatoes they were in the worst shape for carrying round the potato haulms etc. with the rotary wheel.[87]

Other arrangements for attaching tines included parallel link motion in which the tines were placed outside and behind the revolving links.[88]

Alterations were also made to the way the tines were arranged on the spinning wheel. The German manufacturers Harder of Lubeck developed "feathered" action of the forks, by arranging the forks on a ring placed to one side of the spindle so that the tines remained vertical during rotation (Fig. 4.8).[89] The effect was to allow the spinner to dig the full width of the drill so that the potatoes were removed from the centre and outside of the drills, areas where the spinner wheel could not reach. Additionally, it ensured a regular digging action and clean lifting of the entire crop.[90]

FIG. 4.8. FEATHERED ACTION OF FORKS



Source: James A. S. Watson and James A. More, Agriculture: The Science and Practice of British Farming, 6th ed. (Edinburgh: Oliver and Boyd), p. 152.

HORIZONTAL SPINNER

In 1894 Wallace and Sons of Glasgow patented a spinner with a horizontal spinner wheel rather than the vertical one found in the Hanson design (Fig. 4.9).[91] Its design had many advantages over the Hanson one:

> Having so much less leverage against the horses, this makes the draught much lighter. Another advantage claimed for this machine is that the horizontal delivery is not so severe on the crop as the 'Hanson' principle, which comes down on the top of the potato. The great advantages are that the machine works cleaner, does not throw the earth on top of the machine, and is capable of dealing with

> crops of any length of top without getting choked, and so hindered in working.[92]

Additionally it was said to be able to "dig heavy shaws or weedy land better than any others."[93]

FIG. 4.9. HORIZONTAL ARRANGEMENT OF TINES ON A SPINNER MANUFACTURED BY WALLACE OF GLASGOW

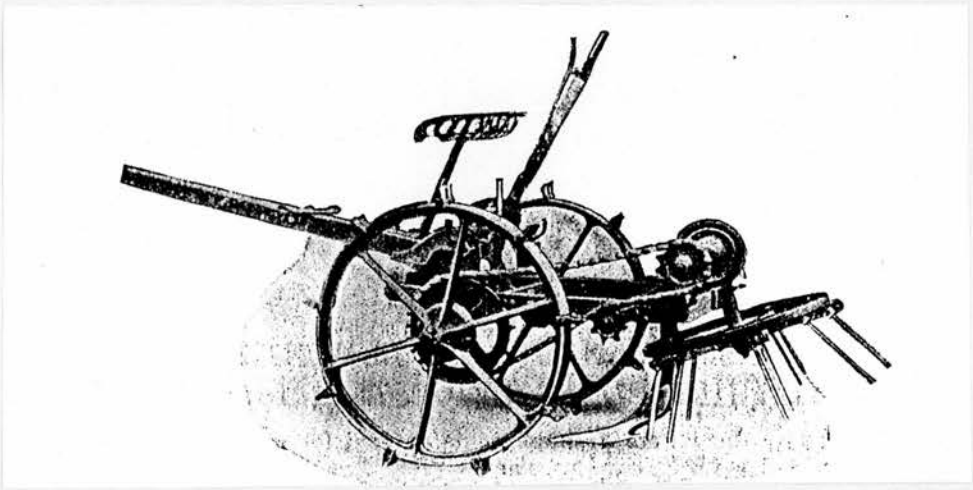
Source: North British Agriculturist, 27 June 1894.

MODIFICATIONS OF THE HORIZONTAL SPINNER

Further modifications of the horizontal arrangement of tines were made which gave rise to an even more satisfactory implement. The tines were held on a semi-horizontal wheel, angled outwards, so they had a "sweeping horizontal movement across the ridges" (Fig. 4.10).[94] This was used as a basis for a further design used in the 1920s, and in later years, where two revolving tine wheels, one to dig the potatoes, the second to prevent the potatoes being spread too far, was used (Fig. 4.11).[95]

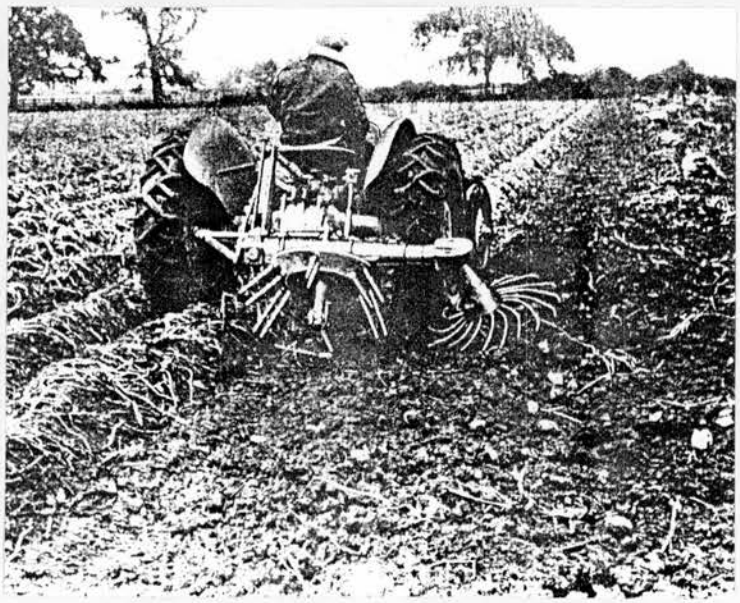
After the end of the Second World War it had "recently become popular" and continued to be so as tractor mounted spinners became available.[96]

FIG. 4.10. SPINNER WITH SEMI-HORIZONTAL SPINNER WHEEL



Source: R. M. Greaves, "Miscellaneous Implements Exhibited at Leicester, 1924," JRASE, 85 (1924), p. 320.

FIG. 4.11. SPINNER WITH TWO REVOLVING WHEELS

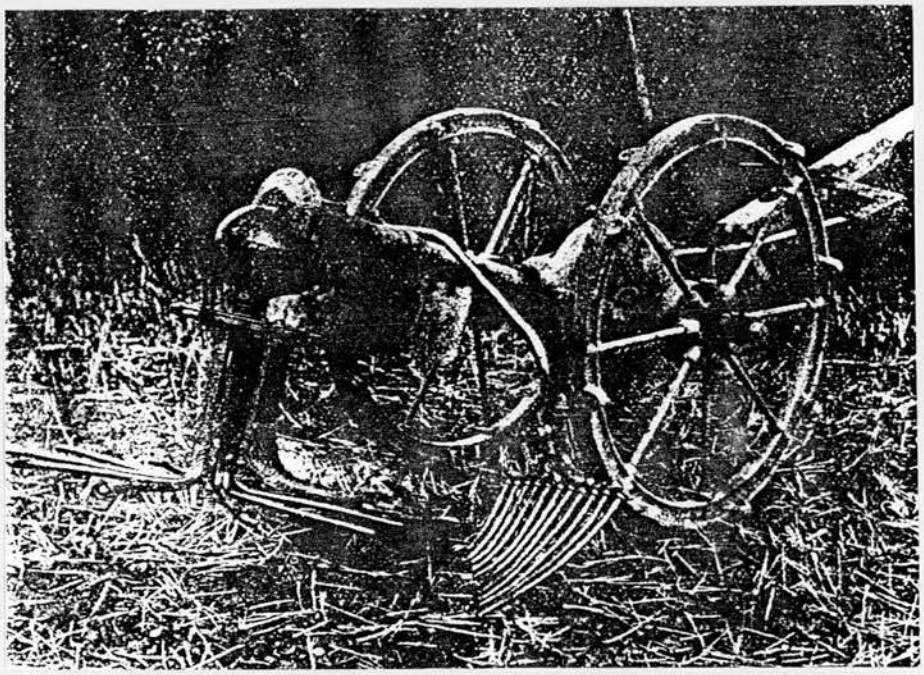


Source: Claude Culpin, Farm Machinery, 6th ed. (1938; rpt. London, Crosby Lockwood and Son Ltd., 1960), p. 338.

OTHER MODIFICATIONS

Although three types of spinner were widely used across the Lothians and Scotland, other modifications were made to the design of the spinner wheel which were only used for a short period. These included a variation on the use of horizontal tines developed by Wallace and Sons of Glasgow and Matthew Mather of Silverknowes, Davidson's Mains in 1897. The forks were arranged on a large disc, angled backwards, which rotated at the bottom of the furrow (Fig. 4.12). In England a similar principle was used four years earlier by James Holt of Chester.[97]

FIG. 4.12. VARIATION ON THE USE OF HORIZONTALLY ARRANGED TINES



Source: North British Agriculturist, 10 November 1897.

ELEVATOR DIGGER

The elevator digger was also known as the "chain digger" from the chain elevator which separated the soil from potatoes, or as the "hoover machine," after the machine manufactured by the Hoover Manufacturing Company at Avery, Ohio.[98]

Although the elevator digger was patented in 1852, it did not become popular until it was imported from the United States during the 1920s.[99] However, as the machine had a heavy draught, and as it would only work in more favourable conditions, or on lighter soil types, it was only slowly adopted.[100] By 1944 there were only 1,289 elevator diggers on agricultural holdings over one acre throughout Scotland.[101] The number compared very unfavourably with the 11,830 spinners in use.

By 1944 the number of machines in use varied from county to county. While none were owned by farmers in either Selkirkshire or Shetland, in Angus, one of the largest potato growing areas, there were 205, the largest number in any county. The number was considerably smaller in the Lothians, where in both Midlothian and East Lothian there were 19 and 36 machines respectively. In West Lothian there were only 7.

The use of the elevator digger was also restricted. Throughout Scotland only 11.6% of all harvesters in 1944 were elevator diggers and in many countries the percentage did not vary greatly from that figure. In the Lothians all counties fell below the average, with only 5.7% and 2.7% of harvesters respectively in Midlothian and West Lothian being elevator diggers; in East Lothian the figure was 11%.

In 1944 the elevator digger could be drawn by either horse or tractor. A comparison of power sources for the spinner and elevator digger at this time shows that the spinner, which was an older implement than the elevator digger, was still mainly drawn by horses. With elevator diggers, there was a greater trend towards the use of tractor powered machines, highlighting its more modern design and more recent introduction and use. In many counties there was a greater use of tractor driven elevator diggers, as was the case in many of the larger potato growing areas, including East Lothian where its use was particularly striking. Indeed, the tractor-powered machine had a number of advantages over a horse drawn one as it had a lighter draught and the web speed could be set to suit soil conditions.[102] Elevator diggers were thus a more advanced implement type.

As tractors became more widespread on farms so too did the tractor powered elevator digger. By 1956 14.8% of all harvesters in Scotland were either elevator diggers or shaker diggers.[103] By 1977 they harvested 55% of the Scottish maincrop surveyed by the Potato Marketing Board, compared to only 6% with the spinner.[104] By 1980, however, that figure had declined, as the digger was replaced by the complete harvester; the use of spinners remained about the same.[105]

INCREASED USE OF THE ELEVATOR DIGGER

The increased use of the elevator digger resulted from its ability to harvest potatoes in a more satisfactory manner than the

spinner. As the potatoes were left in a compact band for the pickers, they were more easily picked up, and work was easier to undertake (Fig 4.13). Additionally, as the potatoes were more completely exposed, fewer potatoes were left buried in the soil, and the crop was more completely harvested.[106] Workers were certainly aware that it was easier for them to work behind an elevator digger than a spinner. Alex Denholm recollects:

> It was a great help compared to the spinner. In fact we were using local labour and that was a very big moot point. ... The women wouldn't come if you had a spinner digger. They used to ask their friend is it a spinner or an elevator digger. If its an elevator digger okay, if a spinner no. They looked for people who were lifting their potatoes with an elevator digger. ... I remember on several occasions ... Mrs Hood [the spokeswoman] said to me, 'Unless you keep the elevator going they'll no come.' I said, 'Oh.' 'They don't like a spinner after the elevator. So you've got to keep the elevator digger on.' But we had to consider the weather, the conditions.[107]

FIG. 4.13. USE OF THE 2 ROW ELEVATOR DIGGER SHOWING POTATOES LEFT IN A NARROW BAND

Source: Field work, Blair Mains, Culross, Fife, October 1990.

Both the one row and two row elevator digger required less labour to harvest each acre than the spinner digger, thus reducing labour requirements and harvesting costs, an important consideration where labour became more expensive to employ (Table 4.1).[108] However, even though the two row elevator digger

required a larger number of workers to work behind it than did the one row elevator digger or the spinner, it still required fewer man hours than these.

TABLE 4.1. COMPARISON OF PRODUCTIVITY OF THE SPINNER AND ELEVATOR DIGGERS DURING THE 1977 POTATO HARVEST

Machine Type	Number of Workers	Hours per Day	Hectares per Day	Man Hours per Hectare
Spinner	19.4	7.9	1.07	168.2
1 Row Elevator	13.3	6.9	0.79	128.2
2 Row Elevator	27.5	7.4	1.33	167.1

Source: Potato Marketing Board, Maincrop Potato Production Techniques in Great Britain 1977-8 (Cowley: Potato Marketing Board, February 1979), p. 66.
1 hectare = 2.46 acres.

Although there were advantages with the elevator digger over the spinner digger, problems were encountered when working with it. Maintenance costs were higher as the web, chain, or elevator wore out relatively quickly and had to be replaced.[109] The digger could not work under the same wide range of soils and soil conditions as the spinner, and was not recommended for work in wet or very heavy soils or adverse conditions.[110] Thus, some growers started harvesting their crop with an elevator digger and as conditions became too difficult for it to work successfully, they changed over to the spinner, so that they could continue working. In essence the spinner was kept as a standby.[111]

CONCLUSION

Of the hand tools and implements available for harvesting the potato crop, the implements were of most importance in the Lothians. While there was a distinct chronological development of the three main implements, the potato plough, spinner and elevator digger, there were overlaps in their use so that the oldest, the plough, continued to be used during the twentieth century. There were push factors for the adoption of each, hand tool and implement which included improved work performance, as each became capable of uncovering potatoes in a more effective manner. They also tended to utilise labour in a more efficient manner, than their predecessor, so that harvesting costs were also reduced. Thus, shortages of labour had a great influence in the adoption of new implements, as it was also to have for the adoption of the complete harvester, which came to replace all the implements (Chapter 13).

CHAPTER 5: HARVESTING TECHNIQUES

As with tools or implements used to harvest the potato crop during the period 1870 to 1995, many techniques were already established before the start of the period. Although modified by the introduction of new digging technology, some continued to be used well into the twentieth century. In 1963 the Potato Marketing Board states that "traditional methods persist on all but a small part of the acreage" throughout Britain.[1] While older techniques were still found in the Lothians and other parts of Scotland into the 1990s new techniques were introduced which had a profound effect on the handling of the crop.[2] This chapter looks at the techniques used for harvesting the potato crop in the Lothians.

OPERATIONS FOR HARVESTING THE POTATO CROP

The potato harvest comprised three stages: the separation of the potatoes from the drill in which they grew; the collection of potatoes into containers by gatherers or pickers; the removal of the potatoes from the gathering area for immediate sale or storage. As for other crops, the harvesting operation was highly organised.[3] All aspects of the process had to work together. The digging tool regulated the supply of potatoes to be gathered and all operations were organised according to it. The gatherers had to work to the digging capacity. If there were too few, the digger could not work to its fullest potential, and if too many, the

gatherers would not be fully employed. A sufficient number of containers had also to be provided for the gatherers. If there was not, the digging implement could not always continue working until all potatoes from one drill were gathered and so work was held up.

VARIATIONS IN HARVESTING PROCESSES

At any given time during the period 1870 to 1995 there were variations in harvesting techniques in the Lothians. Each hand tool and implement had some techniques peculiar to it which affected the way the workers were organised in the field and the way the digging was undertaken. Some collecting containers also had to be specially handled as they were too large and heavy to be moved by one person. Crop utilisation also had a great influence on handling techniques and containers used. When the crop was harvested it could be sold directly from the field or stored and sold at a later date. With first earlies, the largest percentage of the crop was sold for immediate consumption. Potatoes continued to be sold off the field until after the maincrop harvest started. Most of the maincrop, which also formed the greatest percentage of the crop grown, was sold during the autumn, winter and spring months.[4] When the crop was sold for immediate consumption, the potatoes were sorted into various sizes for sale, and the diseased or damaged potatoes removed to be used for animal food. Although dressing machines (sorters) could grade the potatoes, workers could grade by hand as they

gathered.[5] Where the crop was to be stored there was no need to grade potatoes unless there was much disease, such as blight, which caused further damage during storage, or if there was a need to separate out small potatoes for seed.

ROLE OF HARVESTING PERSONNEL

During the potato harvest certain tasks were allocated to either the farm staff or the casual workers specially hired to assist with the work. Some tasks were always undertaken by each group (Table 5.1). The farm staff and the farmer worked with the digging implements, harrows, carts and in later years moved potato boxes as all required skill in working with horses and tractors.[6] Most skill was required for operating the digging implement. For example, the spinner required an operator who could set the machine properly and drive it at an optimum speed so the potatoes were not thrown too far or bruised by the digging tines.[7] In addition, the farm staff also undertook some of the heavier tasks, such as emptying baskets or other containers into carts.

TABLE 5.1. OPERATIONS UNDERTAKEN BY CASUAL WORKERS AND FARM STAFF

Harvesting Operation	Farm Staff	Casual Workers
Destroying shaws	Depended on the method used	Depended on the method used
Digging with handtool such as graip		Usually undertaken by the workers
Digging with plough, spinner, elevator digger	Only undertaken by the workers	
Gathering potatoes	Where some members of the staff are available for work	Main operation undertaken by the workers
Emptying (timming) baskets into carts	Usual work	Only where there was a shortage of farm staff
Emptying (timming) barrels (for first earlies)		Usual work
Harrowing	Only undertaken by workers	
Moving potato boxes	Only undertaken by workers	
Driving carts	Only undertaken by workers	

Source: Field recording.

Casual workers were primarily employed to gather or pick the potatoes from the ground into collecting containers. Where the crop was dug using hand tools such as the graip, and a large supply of labour was required, they also undertook that work. In addition, some workers, timmers, emptied baskets into barrels or into sacks when crops were harvested for immediate sale.[8]

However, some tasks were undertaken by both types of workers. Where there was an insufficient number of farm staff available for emptying baskets some of the stronger casual workers, usually men, were employed. However, not all were strong enough to throw the potatoes into the cart without spilling them onto the ground, and so the task had a high status.[9] Some farm workers, especially women, also gathered the crop and in other areas where there was a shortage of gatherers, the digger driver.[10]

PREPARING FOR THE POTATO HARVEST

Before harvesting operations could begin, steps were taken to prepare the field for the digging implements.

Although much of the maincrop was harvested after the shaws or haulm withered and died down, all first earlies, second earlies and some maincrop varieties had to be harvested while the shaws were still green.[11] Especially if the shaws were luxuriant, they posed problems where mechanical implements (the spinner and the elevator digger) dug the crop as they could become tangled in the digging mechanisms. To make work easier where implements were used to dig crops, the shaws could be removed or destroyed before harvesting began.[12]

By the late nineteenth century the practice of removing shaws on crops which were harvested by implements was well established, even though not all agricultural writers comment on it.[13] In the second half of the twentieth century when the

complete harvester was developed and widely adopted, the destruction of shaws was very widespread. By the 1970s a significant percentage of the shaws on the maincrop were destroyed before harvesting.[14]

Shaws were destroyed by various means. Natural causes were sometimes used for the maincrop varieties. As the crop ripened the shaws withered, and this was sufficient on some varieties to allow the digging implement to operate. For varieties harvested late in the season, farmers could wait for a light frost to touch the shaws before they started harvesting, a practice still noted in the Lothians well into the twentieth century.[15] Most of the methods involved human or mechanical actions such as pulling, cutting and chopping. Workers were sometimes specially employed: they pulled shaws from the drills in a practice noted in Midlothian in the early nineteenth century which was not, however, reported by Henry Stephens in later years.[16] However, field recordings reveal that some of the gatherers pulled the shaws out of the drills before the drills were dug, to eithermake the digging implement operate more successfully or to make their work easier to undertake.[17] Other workers cut the shaws with scythes. However, the practice would only have been practical where the farm staff, and particularly males who traditionally worked with that tool, could be obtained. Nevertheless, the practice continued to be noted into the twentieth century, although it was not recorded from field research.[18]

Other methods were developed and used to destroy shaws during the twentieth century. With the development of chemical sprays, such as arsenic and sulphuric acid, the crop could be

sprayed (Fig. 5.1).[19] As tractors also became larger in size, and had greater power, they could power implements which used mechanical means for removing shaws. While some used flails which revolved at high speed, others pulled the shaws out of the ground.[20]

Many of the techniques were used to destroy the shaws shortly before harvesting began. As soil could be displaced from the drills in which the potatoes grew, exposing the potatoes to sunlight, the crop had to be harvested quickly afterwards as the exposed potatoes turned green and could not be sold for human consumption.[21] However, when chemicals were used, the crop was sprayed some time before harvesting started so the chemicals could work effectively and would not be harmful for the gatherers. With sulphuric acid the period was two weeks and with arsenic ten days.[22]

FIG. 5.1. SPRAYING A CROP OF MAINCROP WITH SULPHURIC ACID

Source: Field work, Pilmuir, Balerno, September 1990.

THE HARVESTING PROCESS

THE USE OF TOOLS AND IMPLEMENTS

The various hand tools and implements used to uncover the potatoes are described in Chapter 4. As the potatoes were uncovered from the soil in various ways, there were differences in the way the crop could be dug. However, there were some similarities, particularly where implements (potato plough, spinner and elevator digger) uncovered the crop.

STARTING THE DIGGING PROCESS: OPENING UP THE FIELD

Field layout had an effect on the way harvesting could begin. In general, drills could be laid out in two patterns: they could extend across a field from one side to another and with no use made of the ends of the field, the endrig or headrig, where implements turned at planting time.[23] In the second, the field was laid out in the same manner but the endrigs were also drilled perpendicularly to the main area of the field so all the ground was used for growing the crop. The width of the endrig varied according to the implement used for harvesting. The smallest was required by the plough, and the largest by the elevator digger, which needed a greater amount of space to turn at the end of the drill.[24] However, as the endrigs were not always wide enough to enable the digging implements to turn at the end of the field, Stephens records how in the 1890s the ends of the drills on the main part of the field had to be dug off prior to the main part of the field being harvested. Such could be paralleled by practices found on some farms during the 1950s when tractors were difficult to turn in a small area.[25]

In the first method no preparation was required to make the field accessible for the digging implement. However, when endrigs were planted, they had to be dug to make the drills in the main part of the field accessible.

The endrigs could be dug in a number of ways. Although mechanical implements could successfully dig the drills, older technologies, such as the graip or plough, were sometimes confined to this part of the field.[26] When the endrigs were dug, work

started at one corner of the field, usually nearest the field gate, and continued around all four sides of the field. The process was repeated until all drills of the endrig were dug.

DIGGING PATTERNS

Where implements were used, the field was dug in two basic patterns. The implement could be used to dig in two directions: it dug down the field, moved across a number of drills, turned, and dug back up (Fig. 5.2). As a pattern, it was recorded where all ploughs were used, and is noted by Stephens and other writers as the usual practice for the spinner.[27] Other evidence suggests it was widespread throughout the Lothians and Scotland, and also where the elevator digger was used.[28] As a method, it required a large number of workers to be placed down the two lengths of the field. However, where large squads were available, better use could be made of their labour as they could be more fully employed than if they were given a shorter length of drill to gather.[29] Additionally, more efficient use could be made of the digging implement as digging was carried on continuously.

FIG. 5.2. DIGGING IN TWO DIRECTIONS

Source: Field work, Hermiston, Currie, Midlothian, October 1990.

When the crop was dug in two directions, implements were used in a similar pattern to the way the traditional plough ploughed a field. With the potato plough the field was divided into sections, sometimes called "lands." The outside drill of the first land was split, and then the corresponding drill on the other side of it. The plough worked down one side and up another, usually

throwing the furrow to the right hand side of the ploughman, until the area of the land was ploughed. A new land was taken, and the process repeated until the field was harvested.[30] With the spinner, the implement moved around the first drill which was dug. After a sufficient amount of ground was dug to allow carts to move up the field, work continued in the opposite direction until the land was completed. When one land was completed, another was taken, which could cover eighty drills.[31]

The field could also be dug in one direction. The implement dug a drill and then "ran back empty" to start digging in the same direction (Fig. 5.3). As digging commenced at one side of the field and continued uninterrupted until the other side was reached there was no need to arrange lands.[32]

As a method of digging, one way digging was not noted by Stephens until 1891 when he describes the spinner digger, which suggests that it was introduced with the use of mechanical implements.[33] Technical problems with the spinner, and later the elevator digger, probably led to its introduction. Neither implement operated properly on sloping ground. The spinner performed more satisfactorily if it dug downhill as less power was required to pull it and where drawn by horses, better traction could also be obtained from the ground which was required to power the machine.[34] Conversely, the elevator digger worked more successfully if it dug uphill as the soil was forced onto the share and was fed onto the elevator chain behind, instead of being bulldozed at the share.[35] If the shaws were not destroyed the spinner also operated more successfully if it dug in one direction, that of the prevailing wind, as the shaws could be fed through the

machine more efficiently, and were less liable to choke the tines.[36] Oral evidence suggests that even where the field could be dug in either of the two ways, some farmers preferred to dig in only one direction as the digger worked more satisfactorily.[37]

FIG. 5.3. DIGGING IN ONE DIRECTION

Source: Field work, Hermiston, Currie, Midlothian, October 1990.

Although Stephens suggests that one way digging was a technique employed on the smallest farms, it was also used on even the largest, as at East Barns in the 1890s, where 335 acres were grown.[38] It may have been associated with the smallest farms as less labour would generally have been available for harvesting. Indeed, the method was used where there was not enough pickers available to gather the equivalent of two lengths of a field, where the two way method was used.[39]

PROCEDURE FOR DIGGING DRILLS

As each tool and implement uncovered the crop in various ways, there were variations in the way digging was carried out. With the graip, the most widely used hand tool in the Lothians, one or usually two drills were dug at a time.[40] According to Thomas Ruddy, an Irish migrant potato worker, "the drills would be that way, across, and if they had twenty graips they'd be in between ... one digging in between every two drills and one picking."[41] As the diggers worked they moved backwards, and the gatherers, who faced them, moved forwards (Fig. 5.4). With other hand tools different techniques were used.[42]

FIG. 5.4. METHOD OF DIGGING WITH THE GRAIP

Source: Letter from Dr M. Storey, Potato Marketing Board, 18 February 1991.

Differences also existed in the way implements dug the drills. The various ploughs opened up the drill in a number of ways. Some only opened up its centre, so not all the potatoes were revealed, and the plough had to return to uncover the rest.[43] With the brander (a plough with a mouldboard made of metal slats which enabled the soil to pass through it) the drill was also split twice. After the plough passed down the field for the first time, the pickers threw shaws on the ground which had been gathered to prepare for the plough returning up the drill.[44] With the drill plough, every second drill was split and the tubers collected. Only after about a half day's work were the remaining drills split.[45]

Some ploughs and the spinner and elevator digger could dig the full width of the drill, and all tubers were uncovered at one time.[46] There were also differences in the way the spinner and elevator digger dug the drills. As the spinner scattered the potatoes, the next drill could not be dug until the potatoes were gathered as they would have been covered by the following drill. There was no such problem with the elevator digger. As the potatoes were laid in a narrow band behind the digger, the drills could be dug in succession without being gathered immediately.

HARROWING

Mechanical implements did not always completely uncover all the potatoes and left some buried out of reach of the pickers or gatherers. As the harvesting process could not be said to be completed, the buried potatoes had to be removed from the soil. Apart from completing the harvest, there were other reasons for their removal. Potatoes which remained were groundkeepers, and if they grew, were a weed in the following crop, usually of grain, and could carry diseases, such as blight, and also pests.[47]

To bring the potatoes to the surface of the soil the ground was harrowed using zigzag, hinged or single harrows.[48] Many agricultural writers like Stephens, comment that it was an important part of the harvesting operation, and in his words, "one which should not be neglected."[49] It appears to have been most widespread when the plough and spinner were used. With the elevator digger "the number of tubers left in the soil is quite

negligible ... there is therefore no need for subsequent harrowing and dragging."[50] Thus, as implements became more efficient at uncovering the potatoes, there was less necessity to harrow the ground, as the price of the potatoes uncovered did not justify the cost of harrowing. Additionally, "as wages got higher it wasn't beneficial to lift the harrowings."[51] The practice declined in the twentieth century. Although still used in the second half of the century, not all agricultural writers refer to it, and not all farmers used it. In later years it was not mentioned by agricultural writers nor for example in the surveys of crop production techniques undertaken by the Potato Marketing Board in the 1950s, 1960s and 1970s, though it was used in the Lothians during that time.[52]

Unlike most tasks in the harvesting operation, harrowing could take place any time after the potatoes were uncovered and laid on the ground. Harrowing could take place immediately after the exposed potatoes were removed by the pickers, and before the next drill was dug or after "every two or three drills" (Fig. 5.5).[53] Most sources, however, report the practice after a larger area of land was dug, presumably so the workers could concentrate on removing as much of the crop from the field as possible. One Irish potato worker, John Cafferky, recollects it after an acre was picked, others after a part of the field was harvested or even at the end of a day, a convenient time for tidying up the field after the completion of a day's work.[54] If undertaken at regular intervals during the day, a second harrowing could also be given at the end of the day, so the potatoes could be more completely gathered.[55] Harrowing also took place after longer intervals, such as after the completion of the preliminary

gathering.[56] As a result, the number of harrowings could vary according to the time when undertaken, and the need to bring potatoes to the surface of the soil.

FIG. 5.5. HARROWING AFTER ONE DRILL HAS BEEN DUG

Source: Scottish Ethnological Archive (SEA), 60/43/34.

There were advantages and disadvantages of harrowing at different times. When undertaken at short intervals of time the potatoes could be gathered in a similar manner to gathering after a digging implement; when a greater area was harrowed, the pickers had to be specially organised in a line for gathering.[57]

However, when undertaken after a large area of land was dug, there was an increased chance that the potatoes would be run over and squashed, crushed, or bruised by carts, especially where tractors were used, and thus be worthless for selling for human consumption. Such potatoes were "usually reserved for the pigs and poultry."[58] As the damaged potatoes were more liable to storage diseases they were stored separately from other potatoes.[59]

GATHERING THE CROP

The second stage of the harvesting process was the gathering of the potatoes, a task which was also the most labour intensive, requiring the largest number of workers and man hours.

GATHERING THE CROP: ARRANGING THE GATHERERS

Where an implement (plough, spinner or elevator digger) uncovered the tubers, the length of the drill was usually marked into sections called stents, or stints, a term used in the Lothians, throughout Scotland and England,[60] or bits.[61] Each was marked by a stick, such as a twig or branch from a hedgerow, a cane, (which sometimes had a potato stuck into the top of it), or a stake (Fig. 5.6).[62] Their function was to organise the gatherers or pickers and

their work by marking where the extent of one picker's work ended, and another's began: they were "territorial allotments."[63] Each stent was the same length "irrespective of the energy or ability of the individual gatherer" and pickers had an equal amount of work to undertake so that the field could be systematically harvested.[64] However, sometimes where gatherers were slow and struggled to complete their work before the harrows reached their stent or the digger dug the following drill, their stent was made slightly shorter and the neighbouring one correspondingly longer, when the stent markers were moved across the field. Such a practice was carried out secretly as it could cause discontent among the gatherers or pickers. As one farmer notes, "all hell would be let loose if the pickers got to hear about that."[65]

The size of the stent varied according to the length of the drill and the number of gatherers or pickers. Depending on the number of workers it could also vary from day to day as changing numbers meant the number of stents had to be rearranged and made correspondingly longer or shorter according to the number to be organised.[66] Although a stent extended from about five yards upwards, a short one was preferred, not only by gatherers but also by their employers.[67] When short, gatherers only gathered for a brief period of time and had frequent rests between the time they finished gathering one drill and started the next. They were also said to work harder, and did not become so "fed up." However, if too short, their labour was not fully utilised as they waited for a longer period than they gathered.

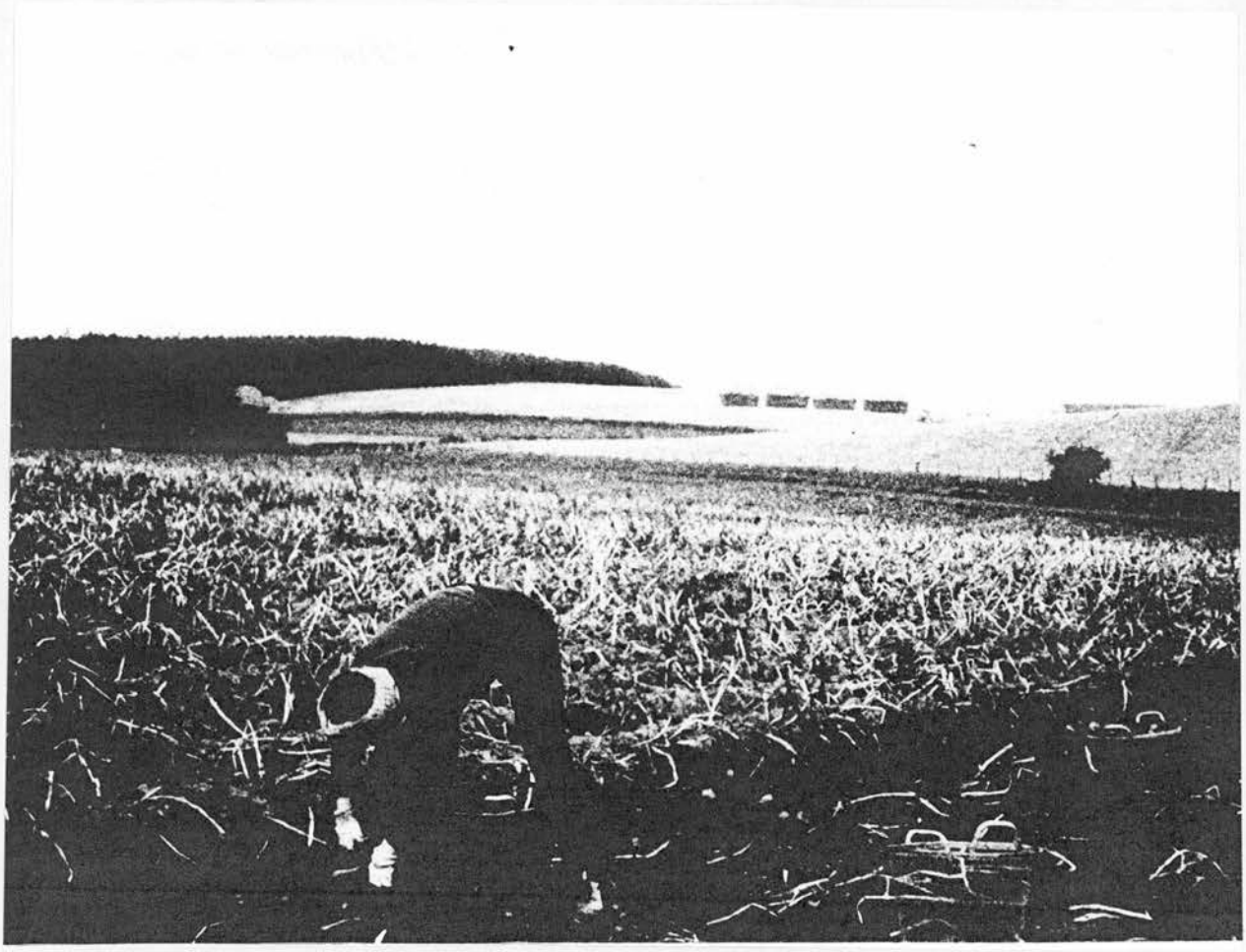
FIG. 5.6. STENT MARKERS MADE FROM TWIGS

Source: Field work, Blair Mains, Culross, Fife, October 1990.

The workers or gatherers were organised on the stent in a number of ways. It was usual for either one or two to be placed on each (Fig. 5.7, Fig. 5.8).[68] Where two drills were dug with the elevator digger, it was more usual for two to be placed on each, one to work on each drill.[69] In some fields a mixture of numbers

was used to suit the capability of workers who either gathered potatoes on a full length of stent or only on half. In some areas, the terms "full stent" and "half stent" were used to denote the amount of work a gatherer undertook. Thus, where two drills were dug at once, and children worked half stents, four gathered on each.[70]

FIG. 5.7. ONE WORKER GATHERING ON A STENT



Source: SEA, 60/42/35A.

FIG. 5.8. TWO WORKERS GATHERING ON A STENT

Source: Field work, Hermiston, Currie, Midlothian, October 1990.

There were advantages to using each pattern of workers on a stent. When one worker gathered one drill, the band of potatoes could be quickly gathered. Two workers could set a pace especially if one was faster, and could work more quickly. George Lothian suggests that they also worked faster in another way: "they talked when they were working rather than stand at the end to have a blether."[71] By doing so, they also made the work interesting. If two gathered together there also appeared to be less work to undertake than if a worker gathered alone on a shorter stent. For separating potatoes into different sizes, it was

advantageous if two worked together as one could pick one size and the other another.

Although the stent was widely used, it did not play a role in all harvesting systems. There was no need for it where crops were dug using hand tools such as the graip, and in some cases with mechanical implements.[72] In such cases the drills were dug lengthways and gatherers progressed up the length of the field, starting at one end and moving to the other. However, there was a need to organise the work. When the graip was used, a forewin, a male or female digger, was appointed as a foreman digger to work on the first graip or the foregraip, as in other agricultural tasks:[73]

> He was the guiding star of the squad. Without him we might have started striving to see who could dig the fastest, or we might slacken off and go slow, depending on what kind of humour some of us might be in. But that was not allowed, everyone was to take their cue from the leading digger, and no one was to go faster than him or fall behind.[74]

GATHERING POTATOES: THE USE OF COLLECTING CONTAINERS

The process of gathering the potato crop can be described by the way containers were used to hold potatoes. A gathering system can be described by the number of containers which handled the crop from the time of gathering until it was to be taken away for immediate use or storage. During the late nineteenth and twentieth centuries two systems were used: a two stage system and a three stage system. The two stage system

involved the handling of potatoes twice into two different containers: the potatoes were gathered into a primary container and transferred to a final container (Table 5.2). The three stage system involved the handling of potatoes three times, from a primary container, to an intermediate container and then a final one (Table 5.3).

TABLE 5.2. COMBINATION OF TWO STAGE COLLECTING CONTAINERS

First container	Final Container
Basket	Trailer / cart
Basket	Potato box
Basket	Barrel
Basket	Sack
Bucket	Trailer / cart
Bucket	Potato box
Bucket	Barrel
Bucket	Sack
Apron (brat)	Potato box
Apron (brat)	Barrel
Apron (brat)	Sack

Source: Field recording.

TABLE 5.3. COMBINATION OF THREE STAGE COLLECTING CONTAINERS

First container	Intermediate container	Final Container
Basket	Hamper	Cart / trailer
Basket	Barrel	Cart / trailer
Basket	Pallet box	Cart / trailer
Basket	Oil drum	Cart / trailer
Bucket	Hamper	Cart / trailer
Bucket	Barrel	Cart / trailer
Bucket	Oil drum	Cart / trailer
Bucket	Pallet box	Cart / trailer
Apron (brat)	Basket	Cart / trailer
Apron (brat)	Bucket	Cart / trailer
Apron (brat)	Hamper	Cart / trailer

Source: Field recording.

Of the two systems, the two stage was more widespread. As handling was kept to a minimum, the potatoes could be dealt with quickly. It was thus ideal for handling the large acreages of maincrop for storage which had to be harvested in a short period and also for first earlies which had to be removed from the field as quickly as possible.[75] The three stage system was usually a more advanced method for handling the crop, and was generally used in particular circumstances such as selling the crop directly from the field. The intermediate containers, peculiar to the system, enabled the potatoes to be separated, often by the gatherers themselves, into different sizes, and sound ones picked out from diseased ones for selling.[76] It also allowed the potatoes to be measured or weighed for sale.[77] However, the system was more labour intensive, requiring both a larger number of pickers

of gatherers and more gatherer man hours to undertake the same amount of work.[78]

A large variety of containers (primary, intermediate and final) was used throughout the late nineteenth and twentieth centuries. All had an impact on the gathering of the crop. They affected the ease with which the gatherers could undertake their work as well as their gathering technique, the techniques employed to transfer potatoes from one container to another as well as the amount of labour required to handle some of them. The containers also affected the way the crop was taken out of the field. The cart, for example, also had a secondary function as a final container as it could transport the potatoes to the place of storage. With other final containers, such as the potato box, the barrel or sack, containers were used for storing potatoes either throughout the winter or until sold, and had to be removed from the field on a lorry or flat trailer, which did not form part of the gathering process.

PRIMARY COLLECTING CONTAINERS

Numerous types of container were used by the pickers or gatherers to collect and hold the potatoes gathered from the ground. The basket was the most widespread in the Lothians, throughout Scotland and Britain during the late nineteenth and twentieth centuries and even into the early 1990s.[79] So common was it in the 1970s that it still held some 98% of the maincrop gathered by hand in Scotland, as surveyed by the Potato

Marketing Board, a figure far greater than the 75% for England and Wales.[80] Locally, the figure varied according to the use of other containers.

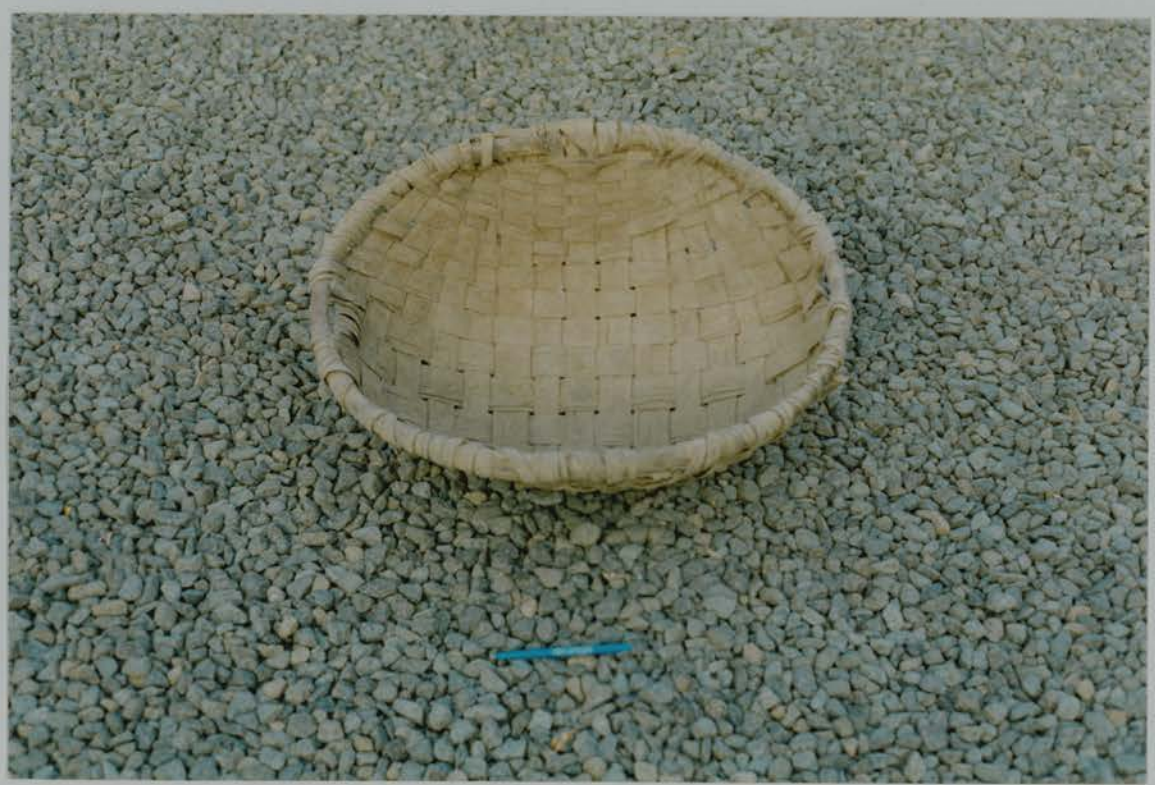
During the period of this survey the basket ranged in shape and construction material. Its shape varied from round, to rectangular, oval and oblong.[81] Perhaps the most common was the oval shape, used as a design with many construction materials. Its shape was particularly advantageous as there was a large area into which the potatoes could be thrown. As the oval shaped basket usually had shallow sides, the gatherers did not have to reach far to throw their potatoes, making their work easier.

The basket was made from a range of materials and was obtained from a number of sources.[82] By the mid nineteenth century wicker-work and wood were recorded (Fig. 5.9). The most widespread was of thin strips or spails of wood, such as willow, hazel and oak, interlaced and woven together around a thicker rim: this was the spail basket (Fig. 5.10).[83] After the Second World War spail was replaced by wire mesh (Fig. 5.11).[84] When plastic became available, it replaced wire (Fig. 5.12).[85] In other areas of Scotland, such as Angus, different materials were also used alongside one another. For example wood was incorporated with wire mesh.[86]

FIG. 5.9. WICKER BASKET

Source: James Slight and R. Scott Burn, The Book of Farm Implements and Machines (Edinburgh: William Blackwood and Sons, 1858), p. 500.

FIG. 5.10. SPAIL BASKET



Source: Pilmuir, Balerno, July 1995.

FIG. 5.11. WIRE BASKET

Source: Pilmuir, Balerno, July 1995.

FIG. 5.12. PLASTIC BASKETS

Source: Pilmuir, Balerno, July 1995.

Problems were encountered with the design of the basket and the construction materials which made the gatherers' work more difficult to undertake. Even when empty, the spail basket was heavy. If soil conditions were sticky or wet, soil adhered to its bottom, and it became even heavier and harder to move across the soil.[87] Gatherers did not like to carry a heavy basket as it involved more work and was tiresome. They would try to clean the soil off in order to make it lighter and easier to work with.[88] The spail basket also held too many potatoes.[89] When filled, it could weigh up to a half hundred-weight, a great weight for the person who emptied it into a cart. Arguments could be caused between gatherers and the basket emptier, or timmer, if baskets were overfilled. The timmer would tip some potatoes onto the ground so the basket could be lifted; no gatherer wanted to re-gather them. Also, the bottom of the basket wore out when dragged along the ground, and had to be repaired or else replaced.[90] The development of the wire basket was seen as an advance for gatherers as it was lighter to carry and work with, and allowed the soil to fall through its sides and bottom. However, there were disadvantages with it. It "tended to be quite sore on your hands, especially once they were a year or two old and there was a wire sticking out."[91] It could be easily flattened if it was left lying on the field and was run over.[92] Nevertheless, the basket could be repaired.[93] Like the wire basket, the plastic one was also seen as an improvement as it was made from a lightweight material, and was lighter. However, its handles could snap from repeated use. On some designs the bottoms split when gatherers tried to knock the basket against a potato box to clean the soil

from it. Unlike the wire basket, the plastic basket could not be repaired.[94]

Also used in the Lothians, as throughout Scotland and England was the brat, a coarse apron made from a potato sack, which could be used for potato planting.[95] A potato sack was split down one side and the bottom, tied around the gatherer's waist like an apron and gathered together and held in one hand, or wrapped around one forearm (Fig. 5.13).[96] The potatoes were gathered into it using the other hand and then transferred into another container, sometimes another primary container, such as a basket.[97] Fieldwork reveals that after the Second World War the brat was widely used in parts of the Lothians where women and Irish migratory workers were employed; children did not use it.[98] In some areas such as Tranent, Wallyford, Musselburgh and Dalkeith areas most of the women preferred the brat to the basket.[99] On some farms in that area "they all used brats."[100] One farmer thought "they found it easier than pulling a basket forward every so often."[101] On some farms the brat continued to be used well into the second half of the twentieth century and until the harvesting process was completely mechanised.[102] However, when the gatherers had to empty their potatoes into a potato box, a final container, it was "awkward" to work with, and so it was replaced by the basket.[103]

Although the brat was widespread in parts of the Lothians, it was not commonly reported throughout Scotland or Britain. By the early 1960s it was found "on a few farms" for harvesting the maincrop throughout Britain.[104] During the 1970s the Potato

Marketing Board notes it as an area restricted to the Northern counties and to the Midlands of England.[105]

FIG 5.13. GATHERING WITH A BRAT

Source: Demonstration at Pilmuir, Balerno, July 1995.

A bucket was also used, as for example at Howden in the parish of Mid Calder during the 1950s (Fig. 5.14).[106] However, few details survive of it either in the Lothians or throughout Scotland and statistics from the Potato Marketing Board in 1968 show that throughout Britain it handled only 9% of the maincrop on farms which were surveyed.[107] It would not have been the easiest container to work with. The solid metal sides and bottom would have made it even heavier than other containers. Soil would not

fall through either the sides or bottom but would adhere to them and have to be cleaned off at intervals to avoid added weight. Because of its tall sides, the gatherer would have to bend up further to put the potatoes into it.

FIG. 5.14. USING A BUCKET AS A COLLECTING CONTAINER

Source: SEA, 60/43/32.

While most of the above were primary containers, some, like the basket were also used as intermediate containers for holding potatoes. However, some only handled potatoes in an intermediate stage. They included the hamper (Fig. 5.15).[108] Although Stephens does not refer to the hamper, documents record it in the early 1890s at Whittinghame Mains and Papple, both on the Whittinghame estate, and at East Barns, Dunbar.[109] However, few references are made in later years, even though it must have been used. By the 1960s only a small percentage of the maincrop lifted by hand throughout Britain was placed into the hamper. When employed alongside baskets, it handled 5% of the crop, and alongside the brat or apron a further 2%; the figure for first earlies was also small.[110] Also used were the barrel, sometimes for holding herring, or specially made for holding potatoes, which held a hundredweight of potatoes,[111] and the oil drum (Fig. 5.16).[112] However, the oil drum would have caused some damage when the potatoes were emptied into it.

FIG. 5.15. EMPTYING POTATOES INTO A HAMPER

Source: Arthur W. Sutton, "The Potato," JRASE, 3rd series, 9 (1898), p. 648.

FIG. 5.16. USE OF THE OIL DRUM AS AN INTERMEDIATE CONTAINER

Source: SEA, 60/42/5A.

While the hamper and barrel were traditional containers, others were developed in the second half of the twentieth century. The development of the tractor foreloader during the 1950s led to the introduction of containers which could be easily handled and moved around the field, such as the pallet box, a box with a pallet bottom which could collect potatoes gathered from baskets (Fig. 5.17).[113] They held either 5 cwt. or 10 cwt. of potatoes.[114] There were various designs, including the stillage and

the kennet box (which was narrower at the bottom than the top).[115] Its function was to reduce the amount of damage to the potatoes, an important consideration where unblemished potatoes were in high demand for pre-packing.[116] It was also a labour saving device as it reduced the amount of labour required for handling baskets as the gatherers emptied their own.[117]

FIG. 5.17. HANDLING THE PALLET BOX WITH A TRACTOR FORELOADER

Source: "Potato Harvesting the Easier Way," Agriculture, 69 (1962), 255.

The intermediate container was used for special purposes. The hamper, for example, handled potatoes which were separated into different sizes, or were graded as the gatherers gathered their stent[118] or where potatoes were sent directly to the station to be transported for immediate sale.[119] Where gatherers were paid by the piece, or by the quantity of work they undertook, rather than by the hour, the barrel could measure the amount of potatoes gathered, a practice more usual in America than in

Scotland.[120] Additionally, as all barrels were the same size, they could weigh potatoes which were to be sold straight from the field for immediate consumption.[121]

As all the intermediate containers were larger than the primary containers many required to be specially handled. Although a man could empty a hamper into a cart, it would have been very heavy when fully filled.[122] With other containers further means were required to handle them. At Howden, for example, the oil drum was emptied into a foreloader, which then emptied the potatoes into a cart (Fig. 5.18). The pallet box was handled by the foreloader, while the barrel could be loaded onto a trailer using a crane system.[123]

FIG. 5.18. EMPTYING AN OIL DRUM INTO A TRACTOR FORELOADER BUCKET

Source: SEA, 60/42/7A.

FINAL CONTAINERS

Of all the containers, the final container was the largest in size. Its function was to hold the potatoes collected in the primary or intermediate containers, and transport them to the place of storage (pit in the field or farm building at the steading), or for disposal. If it was not large enough, or not enough final containers

were used, the smaller primary and intermediate containers could not be emptied and the work of both the digging implement and the gatherers was held up.

Traditionally, the cart was the most common final container which took the tubers to the place of storage.[124] While the box cart with high sides was usually used where horses drew it, some were converted for tractors.[125] In later years the low sided trailer replaced the horse cart, making the task of the basket emptier easier to undertake as the potatoes did not have to be thrown as high into the trailer (Fig. 5.19).[126] As a container, it was widespread until well into the second half of the twentieth century. Even with the advent of mechanical harvesting, the trailer continued to be employed.[127] However, on some farms it was replaced by other containers.

FIG. 5.19. LOW SIDED TRAILER FOR COLLECTING BASKETS OF POTATOES

Source: Field work, Blair Mains, Culross, Fife, October 1990.

The cart and trailer were partially replaced by the potato box, a wooden box which was employed as a storage container for holding potatoes from the time of harvest until they were dressed for sale during the autumn, winter and spring months. In Scotland, the box was first used during the 1960s by the potato merchant Haggart of Muthill, Perthshire.[128] Its adoption was fastest in the seed growing districts where it was suited to handling small quantities of seed potatoes of different varieties and qualities. By the early 1970s the potato box was not widespread in the Lothians. Robert Holmes of Pilmuir, Balerno, was "one of the first folk" to use it "seriously" in the area, in 1972,

after he had seen it in Perthshire and Lanarkshire.[129] Not until after the potato boom of 1975 and 1976 when prices reached a high level as a result of the drought conditions and national potato shortage did it become more popular, as the additional money enabled growers to buy the large numbers required.[130] The boom also allowed the growers with smaller acreages to buy second-hand boxes from the growers who used them first, as they invested in new ones. By 1977 a total of 48% of the maincrop in Scotland was stored in a box, a high figure compared to the 16% across Britain.[131] However, as it was widespread for storing seed crops, the figure would have been lower in the Lothians, as most crops were grown for ware or table use. By the 1990s the box was widespread, both for crops still gathered by hand and for those harvested by complete harvester.[132]

The box generally became larger in size. The earliest held ten hundred-weights or a similar amount (Fig. 5.20).[133] With the development of heavier fork-lift trucks, capable of working with heavier loads, a ton sized box was developed, a size which is now universal and standard (Fig. 5.21). Where heavier handling facilities are available, a two ton box can be used.[134]

FIG. 5.20. HALF TON POTATO BOXES COLLECTED TOGETHER

Source: Field work, Pilmuir, Balerno, September 1990.

FIG. 5.21. ONE TON SIZED POTATO BOXES

Source: Field work, Hermiston, Currie, Midlothian, October 1990.

The potato box altered the way the potato crop was handled. As gatherers emptied their basket directly into the box, they did not have to wait for their baskets to be emptied.[135] As the potatoes were handled fewer times, there was less chance of damage occurring each time they were handled or transferred from one container to another.[136] There was also no need to use a cart to collect the potatoes, nor was a person required to empty the baskets. Instead, a tractor was fitted with forks to move the box towards the picking face and to remove it when full.[137] The potato box also affected the way potatoes were stored. No longer were potatoes stored in the fields, in pits, but in sheds, either modified or specially built at the farm buildings or steading. When stored at the steading, the crop could also be dressed or sorted inside a shed, making work more pleasant for the workers during the winter months.

Other final containers were used where crops were sold immediately from the field. For the first earlies, a barrel, which held 12 stone, was found in the Lothians and other early growing areas in Scotland, as well as Ireland (Fig. 5.22).[138] Its function was to protect the tender skin of the potatoes which could be easily damaged if they rubbed against each other.[139] However, Stephens does not mention the barrel until 1890.[140] It continued to be found in, for example, Ayrshire until the Second World War, when replaced by the sack.[141]

FIG. 5.22. USE OF THE POTATO BARREL FOR HARVESTING FIRST EARLIES IN AYRSHIRE

Source: Arthur W. Sutton, p. 636.

The sack was a traditional container and was recorded at an earlier date than the barrel. Stephens refers to it for handling the maincrop harvest in 1844, and in later years, as did John Wilson.[142] However, detailed information regarding its use is not found until well into the second half of the twentieth century. Surveys of harvesting techniques undertaken by the Potato Marketing Board throughout Britain in 1968 found that the sack handled 92% of the first earlies and 24% of the maincrop acreage.[143] The sack was made from a variety of materials - canvas, jute and paper - and held a half hundredweight (56 pounds) or a hundredweight (112 pounds) (Fig. 5.23).[144]

FIG. 5.23. USE OF THE SACK IN A CROP OF EARLY POTATOES

Source: Janet Lindsay Ross, "Tattie Howkers - Rough Characters With Streaks of Warmth," Scottish Farmer, 6 April 1991.

NUMBER OF CONTAINERS GIVEN TO GATHERERS

The number of primary containers given to gatherers had to be sufficient to hold all the potatoes which were to be collected on

a stent or amount of land. If there were too many, gatherers only used those they required, and abandoned the rest. However, when there were too few containers, they were overfilled, and consequently became heavy and difficult to lift. If a two stage handling system was used, and the pickers had to wait to get their containers emptied, not all potatoes could be gathered before carts or other final containers could empty them so all other operations were held up. A varying number of containers was given, ranging from one up to six. The most common number of baskets was two, a number Stephens considers to be sufficient.[145]

The number of baskets varied according to factors operating within the general organisation of the potato field. If the gatherers could not empty their container as they gathered, a varying number had to be supplied which suited the crop yield (a heavier one required more baskets) and the length of stent (a longer one required a greater number) (Fig. 5.24).[146] When some containers were used in either the two stage or three stage handling systems, specialised handling methods affected the number of primary containers given. With the hamper, only one basket was required as the gatherer could empty the potatoes into it; similarly only one basket was required where the potato box and kennet box was used, as the gatherers could empty their basket themselves (Fig. 5.25).[147] Additionally, where potatoes were separated by pickers as they gathered, baskets had to be supplied to hold the separate types.[148]

FIG. 5.24. NUMEROUS CONTAINERS WERE GIVEN TO GATHERERS WHERE THE CART WAS USED AS A FINAL CONTAINER

Source: Field work, Blair Mains, Culross, Fife, October 1990.

FIG. 5.25. EMPTYING A BASKET INTO A POTATO BOX

Source: Field work, Hermiston, Currie, Midlothian, October 1990.

TECHNIQUES FOR PICKING UP POTATOES

Although each gatherer had his or her own individual technique for picking up potatoes, various ones were used by all. Regardless of what tool or implement was employed to uncover the potatoes, a number of stances were used. Gatherers stood up and bent over to pick up the potatoes, a method recorded from first early to maincrops.[149] Sometimes they also flexed their knees slightly so they did not have as far to reach the ground. Field observation showed how it was a quick method for moving on the stent, and also for moving the collecting container, as gatherers had to move a number of times to reach all the potatoes (Fig. 5.26). When the brat was employed, workers could only stand up as it would have been difficult to work with otherwise.[150] Workers also knelt on the ground and moved around on their knees (Fig. 5.27). Although widespread as a technique, it was perhaps most closely associated with women who gathered the first earlies into baskets which were dug by the graip.[151] Although the work was easier on the gatherers' backs, it was very hard on their knees. To protect them, and also their clothing, the women wore bags made into aprons.[152] However, it was perhaps more difficult to move across the ground to gather all the potatoes, especially where they were scattered by the spinner.

FIG. 5.26. BENDING OVER TO PICK UP POTATOES

Source: Field work, Hermiston, Currie, Midlothian, October 1990.

FIG. 5.27. KNEELING TO GATHER POTATOES

Source: Field work, Blair Mains, Culross, Fife, October 1990.

As the gatherers had to work quickly, they employed various techniques to put the potatoes into their primary container. The brat was held open with one hand, and the other hand gathered the potatoes.[153] Although it would appear that it was a slower method than gathering with two hands, oral evidence reveals that it was actually very quick. Farmers testify that some women were particularly adept at using the brat: "they could go [gather] like steam."[154] With all other containers, gatherers gathered the potatoes with both hands. So that the potatoes could be gathered as quickly as possible, the basket (or similar container) was always placed close to the gatherer and also to the potatoes to be picked up. Field observations, together with photographic evidence, show that baskets were arranged on the ground in a number of ways.[155] The basket could be placed in front of the gatherer and the potatoes were thrown forwards into it (Fig. 5.28). However, "it had the adverse effect of squashing the tatties into the ground."[156] The basket could also be placed either between the gatherer's legs or slightly behind them and between their legs, so that the potatoes were thrown towards the picker (Fig. 5.29). With the round basket which had deep sides, the basket was held between their legs and angled forwards and the potatoes "fired" into it (Fig. 5.30). As a method, it was faster and easier on the gatherers' arms. Moreover, it was easier to drag the basket than move it forward.[157] When the round basket was angled towards the ground, the gatherer did not have to pick the potatoes up as far to throw them into it.[158] The basket could also be placed directly to the side of the gatherer, and the potatoes

were thrown across their body.[159] However, it was more difficult to handle the potatoes quickly this way.

FIG. 5.28. THROWING POTATOES FORWARD INTO A BASKET

Source: SEA, 60/43/8.

FIG. 5.29. THROWING POTATOES BACKWARDS INTO A BASKET

Source: SEA, 60/43/15.

FIG. 5.30. THROWING POTATOES INTO A ROUND BASKET

Source: Field work, Hermiston, Currie, Midlothian, October 1990.

PICKING UP POTATOES: PERSONAL EXPERIENCES

Not all crops were identical to gather. Some were more difficult than others. As the first earlies were immature and some were still attached to the roots, the potatoes had sometimes to be pulled from them before they could be gathered. Even with the maincrops some potatoes had to be pulled from the roots, a task which slowed down work.[160] Soil conditions had a great effect on gathering rates, and the ease with which the work could be undertaken. Cloddy soils made the work more difficult as the gatherers had to search for the potatoes under them.[161] Where the soil was sticky and adhered to the potatoes, it produced a

dirty sample, and if gatherers tried to remove the soil, their work was slowed down.[162] The way the hand tools or implements laid the crop on the surface of the ground made work easier or harder to undertake. Gatherers were said to prefer the elevator digger as it laid the potatoes in a narrow band; with the spinner they were scattered over a wide area. As has been noted in Chapter 4, not all potatoes were uncovered and placed on the surface of the soil, and gatherers had to search for them. When potatoes had to be separated into different types as they were gathered, some skill was required to separate the tubers. As one Irish migratory worker comments: "Oh! it'll come awkward in the beginning but, you'd get used to it. Hard work is very easy learned."[163]

THE FINAL STAGE OF THE HARVESTING PROCESS: REMOVING THE POTATOES FROM THE FIELD

In the last stage of the harvesting process the potatoes were removed from the gathering area of the field for immediate sale or to be stored. The process involved the handling of the final containers. Where they were used to store the potatoes (such as the potato box, potato barrel and sack) a flat trailer or lorry transported them from the field (Fig. 5.31). The use of the cart, a traditional final container, and one which was widespread, will be described.

FIG. 5.31. LOADING A POTATO BOX ONTO A LORRY

Source: Field work, Hermiston, Currie, Midlothian, October 1990.

As with other operations for harvesting the potato crop, there were variations in the way the cart collected the primary or intermediate containers which were full of potatoes. In the first editions of The Book of the Farm, Stephens notes how the cart was situated at a "convenient" part of the field within easy reach of the gatherers who would carry their baskets to it to empty.[164] It was not an efficient way of utilising labour for gathering, particularly where large acreages were harvested as the gatherers could use the time they took to empty their baskets for gathering. Later editions of Stephens' book, together with oral evidence from the second half of the twentieth century, suggests that the cart

was usually taken around the field to gather the full containers.[165] It was also usually loaded by a person specially appointed to undertake the work, rather than by the gatherers themselves.

The cart moved down the drills in the same direction that the crop was dug: the containers which were filled first were emptied first so that digging could proceed in an orderly fashion (Fig. 5.32).[166] The cart was taken down the field in a number of positions. It ran on the loose soil to the dug side of the baskets or along the bottom of the second and third drills which were to be dug.[167] In both cases, the cart ran near to the baskets so that they did not have to be carried far.

FIG. 5.32. MOVING UP A FIELD WITH A CART TO EMPTY PRIMARY CONTAINERS (BASKETS)

Source: Field work, Blair Mains, Culross, Fife, October 1990.

As the primary or intermediate containers had to be emptied before the gatherers could start gathering potatoes on the next drill, two or three carts were required to empty them, moving between the gathering area and the storage area. Where potatoes had to be transported over long distances an even greater number was used.[168] This was necessary where potatoes were separated into different sizes.[169]

CONCLUSION

The process of harvesting the potato crop involved three stages: uncovering the potatoes; gathering the potatoes into containers; and transporting potatoes for immediate consumption or to be stored. For the harvesting process to take place as efficiently and quickly as possible, all aspects of the process depended on the operation of the others. During the period of discussion, tools and implements influenced the way the field was dug and subsequently also the work of the gatherers. Crop utilisation also affected harvesting techniques, especially the range of containers used for holding the potatoes as some had to be graded or sorted in the field. Ultimately, they had an effect on the gatherers' work.

PART 4: EMPLOYMENT OF LOCAL WOMEN

CHAPTER 6: LOCAL WOMEN AND THEIR EMPLOYMENT CONDITIONS

TYPES OF WOMEN EMPLOYED AT THE POTATO HARVEST

Of the three types of workers studied in this thesis, women, children and Irish migratory workers, the make up of squads of women was the most complex. Women were of two types: the farm staff employed throughout the year and the casually employed workers specially recruited to harvest the crop. Within some squads there was a mixture of both types (Table 6.1).

TABLE 6.1. USE OF TYPES OF WOMEN EMPLOYED ON SQUADS

Employer	Full Time Women	Casual Women
Farmer	Yes	Yes. Some farmers did not have any full-time women employed, and their squads only comprised casual workers.
Labour contractor	No	Yes. Labour organisers only supplied casual labour.
Potato Merchant	Yes. Some merchants employed local women; others employed Irish women.	Yes. Most of his labour was employed on a casual basis.

Source: Field recording, J. Anderson, Broxburn, 25 August 1995; Field recording, D. Dandie, Learielaw, Pumpherston, 24 July 1995; Field recording, J. Harvie, Dalkeith, 14 August 1995.

In squads hired by farmers, the women farm staff formed the core of the squad. While some farms had a sufficient number of workers to form a squad, even into the 1980s, others did not and had to augment numbers by employing casual workers.[1] Some squads comprised only casually employed women, especially where they were hired by labour contractors or were employed on farms where no women were employed.[2] Potato merchants also employed women on a full time basis to undertake all their potato, and sometimes vegetable work.[3] Throughout the period 1870 to 1995 there was a growing tendency to employ squads of only casual workers, as the number of women employed on a full-time basis greatly declined, not only in the Lothians but throughout Scotland.[4]

This chapter focuses on the employment and employment conditions of local women who were employed on a casual basis from a few days to a few weeks to harvest the potato crop.

RECRUITING THE CASUAL WOMEN

As was noted in Chapter 3, employers could recruit casual workers in a number of ways. Locally employed women could be employed by farmers, through labour contractors or through potato merchants. A number of methods were adopted by all three employers to contact the women in order to recruit them. The workers themselves could contact the employer, for example by going to his farm, or telephoning him to ask when the potato harvest started.[5] Employers could speak directly to the women

themselves. This was usually only undertaken where they had been employed at the potato harvest for a few years. For example, in the Balerno area, where a limited number of women was available and who were employed each year, the farmer at Upper Dean Park "spoke for them [the women] early in the year" before other farmers asked them if they would work with them. When the crop was ready to harvest "you went down and said when you needed them."[6] The women themselves could also recruit others, such as relatives or neighbours, by word of mouth once they knew work was available, and when it was starting.[7] Some employers took vehicles into housing schemes and other areas where they knew they could obtain workers, and waited until they came out of their houses. However, with that method it was not always possible to know how many women would turn out. On some days it took longer to gather together enough workers to get the required number for a squad.[8]

AGE OF WOMEN

The age of women who employed at the potato harvest depended on their domestic circumstances. Sometimes they were "girls just left the school with nothing else to do."[9] Although they could be employed "from fifteen to sixty years of age," or even older, many who were traditionally employed were of an older age group. At Dolphingstone, Tranent, where women were employed throughout the year for vegetable and potato work, most were between forty-five and sixty-five years of age; a few

were older. Those employed by Alex Denholm at Musselburgh were "all fortyish upwards," and at Upper Dean Park, Balerno they were "mostly in advanced years." One squad from Leith employed by the potato merchant Gilbert McClung of Edinburgh during the 1930s comprised some women who were "quite elderly."[10]

As the majority of women were married, they had commitments to fulfil at home, which could make it difficult for them to undertake work at the potato harvest. When women had young families they were in a more difficult position to obtain employment as the infants or young children had to be looked after. Mothers solved the problem in a number of ways. They took their children from school so they could look after the house, look after the baby or run messages.[11] However, it was not always possible to do so. Parents who applied to get their children from school were usually refused permission, as the cause did not warrant the loss of education which was incurred during their absence. Nevertheless, some parents still took their children from school, even though it was illegal. The practice was more widely recorded during the late nineteenth century than in the early twentieth. By the 1950s references to it are rare, though it was noted of one or two parents.[12] Where women could not get their older children to look after the younger ones, they employed other methods. They arranged with relations, friends and neighbours to look after them. In the Wallyford area, for example, during the 1960s women shared the task between them so that they could all be employed at nearby farms:

> They would work in the morning, half days and would look after their friends' kids in the afternoon and they would work in the afternoon.[13]

Sometimes women brought their infants or children to the field. Prams and push chairs were to be found at the end of some fields. If the children were old enough to help their mothers gather a few potatoes, some mothers got their children to help them gather their stent; technically they were not employed by the farmer or other employer.[14] For some women employed near to their homes, as at Wallyford, the children came out to the field after school was finished to assist their mothers until they finished work, usually at 5pm.[15] Particularly in latter years employers discouraged mothers from bringing their young children to the field because of the danger of being injured by tractors and other machinery.[16]

TRADITION OF EMPLOYMENT AT THE POTATO HARVEST

It was customary for members of some families to go out to the potato harvest each year. Some started as young children who worked alongside their mothers on the same stent. In later years they could be released from school to be employed if the school authorities allowed them. Some girls also worked after they left school and continued as married women and mothers, and then as grandmothers. In some fields two or more generations of a family were to be found, such as a mother and daughter, or even "a daughter, mother, and grandmother."[17]

Although some women came out for only one or two years, oral accounts suggest that some came out for many. John Galloway saw "some oldish women even up to the age of seventy who had come out every year."[18] Squads thus comprised a mixture of new workers and experienced women who were employed for a number of years. The "regular" members on squads were the best workers, as they had learned what was involved in the work and developed their own technique for gathering potatoes. Some of the older women were thought to be the best workers: "they were more conscientious than the young workers."[19]

Women were widely reported to look forward to the potato harvest.[20] For them it was a break from their household routine: it was "as good as a holiday to them."[21] Perhaps more importantly, they earned money to supplement their household income. It acted as "pocket money," money to be used for day to day purposes for buying such necessities as clothes and boots for the children.[22] Additionally, the money was used for special purposes and occasions:

> It [the potato harvest] was something that the locals looked forward to get two or three extra pound for to buy luxury goods that they obviously couldn't afford at that time. A lot of them knew exactly how much money they would get. They would know how long they would be here and went to another farm ... had that money, in their minds all spent.[23]

> Originally the local squads came from the village areas rather than town areas. They came out to get money. It was the only chance of working. I mean, the women's place was in the house. They came out to do the tattie picking for their Christmas shopping. And it was the only way that some folk got presents and I'm not going that far back, you know. It shows you how things have changed. But there was no employment for women. ... But the tatties, they could get five or six, or even eight weeks work and make money.[24]

For women in particular districts where there were few other occupations which they could engage in for short periods of time, the work was one of the most important sources of income for their households.

Apart from money, women also obtained an important "perk" from their work, namely the boiling, which was a quantity of potatoes (see later in chapter). This also played an important part in their home economy:

> Just say they worked three weeks at the harvest and they take a boiling home every night and they stacked it and kept it cool, it would do them for a couple of months. It would supplement their diet for a couple o months anyway. ... And if there was two and three going out from the one family with a wee poly bag then they could have been bagging them up at home and that would be supplementing their income again.[25]

NUMBER OF CASUALLY EMPLOYED WOMEN IN THE LOTHIANS: STATISTICS OF EXTENT OF EMPLOYMENT

As with other workers, it is very difficult to tell how many women were employed on a casual basis at the potato harvest. Of all the workers, very few sources of evidence exist which reveal how many were employed. As no government department or other body took an interest in the employment of women, unless they approached a body which arranged for their employment or took note of it, such as an employment exchange, no records exist. Even when labour had to be recruited in large numbers during the Second World War and in following years, one official report summed up the situation for their employment:

> Housewife labour ... the general opinion was that it was better to leave the recruitment of this type of labour to farmers or contractors as the availability of the housewives for work depended on so many outside factors such as weather conditions, domestic arrangements etc.[26]

Where statistics of the number of women are available, they are very fragmentary. Many exist for one or two farms, and state only how large the squad was at them. Few exist for a number of farms within a parish or within a larger area; none survive for a county.

Where women were employed through employment exchanges, as in Edinburgh during the mid 1920s, a significant number were employed. For the 1925 harvest an average of 300

was sent out daily while in the following year they were employed to "a considerable extent."[27] In some districts there was a great dependence on their labour. Around mining areas such as Tranent, Wallyford, Musselburgh and Blackburn, large numbers were employed after the end of the Second World World War and into the 1970s.[28] From Wallyford, for example:

> There were four farms round about here that drew their staff for the potato harvest from the village; plus there would be a good hundred or so left the village to work at the potato harvest. There would be bus loads go away down east and work away down east.[29]

Some trends in the employment of women can be established, particularly from the 1950s onwards. Throughout the Lothians during the 1950s the number of children released from school was deliberately reduced so that the call on their services could be brought to an end. As labour had to be drawn from other sources, farmers and other potato growers were asked to employ alternative workers such as local women, unemployed workers through the labour exchanges, and prisoners.[30] As a result, there was an increase in the employment of local labour. Such a situation was found, for example, in 1961, for the employment of married women.[31] Similarly, when the number of Irish migratory workers started to decline during the late 1950s and the 1960s, potato merchants started to replace their services with squads of local workers recruited in Scotland.[32] Thus, there was an increase in the number of women and other local workers employed.

However, the number started to decline from the 1960s onwards. Although there are no statistics of the numbers employed, by 1990 very few squads were employed at the potato harvest in the Lothians. By 1995 there were none. Nevertheless, a small number continued to work on mechanical harvesters.

REASONS FOR THE DECLINE IN THE EMPLOYMENT OF WOMEN

While it is difficult to state the number of women employed to harvest the potato crop, it is easier to state why their employment eventually declined. The decline in the number of women employed was the result of social and economic factors which affected their need to go out to the potato harvest.

Women traditionally went out to the potato harvest to supplement their household incomes. However, as their own economic conditions improved, and there was "a bit more money going around," their earnings were not as essential to their incomes and it was not as important that they went out to earn money from the potato harvest.[33] As economic conditions improved, the work fell to women and other local workers with lower incomes than those who were traditionally employed. However, when their economic conditions improved, they no longer had as great an incentive to go to the potato harvest and work. As a result, labour became difficult to obtain.

The women's personal circumstances had an impact on the numbers employed at the potato harvest. In the Balerno area around the Second World War, their employment declined as they

became too old to go out and no younger women were available to replace them.[34] The personal circumstances of women from the Prestonpans, Tranent, Elphingstone and Musselburgh areas were rather different to those of the Balerno area. As the villages were largely dependent on mining, changes in that industry affected the women who went to the potato harvest. At Dolphingstone, "the availability of women labour virtually dried up in the area since the pits were closed." Andrew Hastie also comments how in that area:

> Miners were given early retirement and their wives would say why should I work? Because it would affect their pension from the Coal Board. And really they felt it wasn't worth their while working.[35]

The decline in the employment of women was also the result of greater changes which affected Scottish and British society as a whole during the period after the Second World War. Great changes were made to the role of women in the household economy. Eric Richards sees the middle of the twentieth century as an important time for the start of employment opportunities for women outside the home.[36] For him, that employment "particularly benefited" married women. While "a little more" than 34% of all women over 15 years of age were engaged in employment, in 1931, by 1961 "more than one half of all the women in paid employment in the United Kingdom were married."[37] The increased employment of women in full-time employment had a great impact on the number of workers

available for the potato harvest. Where they were engaged in full-time employment they could no longer make themselves available for work at the potato harvest for a few days or even a few weeks.[38] Field recordings reveal that where they entered full-time employment, they stopped going to the potato harvest:

> There was no employment for women. ... there wasn't the amount of factories in this area [Dalkeith]. I mean, this area was mainly mining and farmin. So the women sat in the house all the time or done cleaning jobs or something like that. ... But when the factories opened up in this area these women found permanent employment and a lot of them were good workers, very good workers.[39]

> People were getting other employment. You know there was the likes o Burtons' Biscuits destroyed the job. I suppose it was five days a week ... better conditions that was all these factories started in Sighthill and other places. They would take another one wae them and another one wae them. I think a lot of them enjoyed the work ... times just changed them.[40]

However, the increased movement of women to full-time employment was not undertaken at the same rate everywhere. Rather, it depended on the opportunities which were available for them in their own areas and others within easy reach of their homes. Where no alternative employment was available in some

areas, women continued to go out to the potato harvest until more recently.

In addition, general changes took place in Scottish society which affected the number of workers who went out to the potato harvest. Generally improved social and economic conditions altered people's expectations of life and work and generally increased them, with the result that they did not look on employment in a casual agricultural activity as the most satisfactory way to earn money. Work at the potato harvest did not always involve the most congenial employment conditions, especially towards the end of the season when the weather is colder and the days shorter and conditions usually poorer. It did not always pay the highest wages.

Changes in the potato industry affected the number of women employed, particularly from the 1950s onwards. The traditional practices which merchants used to buy potatoes gradually altered. There was a decline in buying potatoes growing in the ground, which had to be harvested by the merchant, and an increase in the practice of buying them ready harvested and bagged from farmers.[41] While it affected the amount of labour employed by merchants, it also had an impact on the overall supply of labour in the Lothians. When farmers harvested their own crops, they tended to be the first potato growers to adopt mechanical harvesters. As they harvested larger acreages, fewer squads were required.

The increasing use of mechanisation also had a great impact on the employment on women. Farmers comment that in the first years when they used mechanical harvesters some women

complained that they could no longer get a job at the potato harvest.[42] However, that situation was not noted by all employers. When mechanisation made large inroads in harvesting the crop, workers did not look for employment from farmers and potato merchants who still required squads. George Lothian states that:

> When the machines started coming in first we thought there would be an abundance of squads. But all that happened was that folk didn't need to come out to tatties.[43]

The factors for the decline came mainly from the workers themselves.

CHANGING CHARACTER OF THE SQUADS: THE INCREASED PRESENCE OF MALES

During the second half of the twentieth century, when the employment of local women declined, the character of the squads in general was greatly altered from earlier years. Traditionally, few males were employed at the potato harvest. Where they were employed, they usually undertook the heavier tasks, such as emptying baskets or working at the pits; few gathered the crop.[44] Those which gathered the crop were not always capable of heavy physical work. During the 1870s one source describes them as "never thoroughly able-bodied labourers."[45] At other times, they were unemployed males or workers specially recruited such as prisoners of war or prisoners.[46] Even after the Second World War,

very few men were employed to gather potatoes. The Potato Marketing Board states that throughout Britain in 1963 some 12% of the casual labour employed were men; the corresponding figure for women was 67%.[47] However, by the 1980s and early 1990s the figure had increased and in many squads a large number of males gathered the crop.

The changing role of males and females reflected widespread changes in the social and economic backgrounds of the workers. By the time males became more widely employed the traditional role of women was declining as they were engaging in full-time employment outside the home. While many women were no longer available to engage in casual employment, a few, whose home circumstances enabled them to go to work, continued to go to the potato harvest. However, as a smaller number of workers was available, employers had to look for alternative labour.

In general, the workers were drawn from a lower social background than that of many of the workers who had been employed in earlier years. Increasingly, squads were drawn from large housing schemes of towns and cities which were among the more deprived areas such as Craigmillar in Edinburgh, and some of the housing schemes of areas such as Tranent, Ormiston, Gorebridge, Mayfield and Rosewell. Such areas could provide a workforce which was still willing to undertake manual work. Additionally, as such areas tended to have a higher level of unemployment, large supplies of workers were available who would give their services from a few days to a few weeks or longer. Because of the character of the workers, a greater number of males was recruited as they were not engaged in full-time

employment, and could therefore engage in casual employment, a fact noted in earlier years where males were employed to gather the potato crop and engage in other seasonal occupations.[48] While some were only employed for short periods of time, and were between jobs, others had been unemployed for a long period. The males ranged from teenagers who had left school and had not found any work, to those who had retired, and had worked at the potato harvest for a number of years, to obtain some additional income.

In some squads there was a mixture of workers from different social and economic backgrounds. Some were unemployed workers trying to get some additional money to supplement their unemployment benefit. Others were retired males who worked for a number of years. Teenagers who had recently left school, and had not obtained full-time employment were also found. On some local squads, recruited by contractors from Ireland who had settled in Scotland, there was a core of workers who had been Irish migratory workers settled in Scotland, or their relations. At Aberlady Mains during the 1980s "Irish connections" were particularly noted among the workers.[49] There were also members of families and relations who had been employed as regular potato gatherers for a number of years who looked upon the work as an important part of the autumn months. Middle-aged housewives were also present as were older women who had been employed every season for more than twenty years.

The character of the squads generally changed from those which were employed during earlier years. Particularly where

they comprised unemployed workers from the housing estates, and workers from the deprived areas, reports suggest that they were coarser and rougher in character, speech and manners; swearing and verbal abuse was widespread. On some squads workers "had no interest in coming out." Instead, they wanted the money and the potatoes to take home with them.[50] As some farmers were aware that tools could go missing when the squads were employed at the potato harvest, they would lock up those which could be carried away. They would not let the workers into the farm steading even if it rained. The custom of the boiling (see later in chapter) was perhaps subject to greater abuse, as great quantities of potatoes were taken by the workers. Some members of squads took great quantities of potatoes from the field or else stole them so they could sell them. Workers were said to be more interested in taking potatoes than they were in working. Because some employers found working with the local workers a very different experience from that of other types of labour, especially in earlier years, they comment upon the change in working with squads. One farmer's wife who had worked with Irish migratory workers for a number of years, and then worked with a squad organised by a labour contractor made a comment that "you've never lived till you have worked with a local squad. It's an education!"[51]

EMPLOYMENT CONDITIONS

The employment conditions given to local women are discussed under the following headings: transport; hours and days of employment; drink; food; sanitary facilities; wages; and boilings.

TRANSPORT

It was very common for employers to transport the women to farms where they were employed. Vehicles ranged from carts in the 1890s, to char-a-bancs in the 1920s, to buses, open lorries and trailers in later years. By the 1980s and 1990 vans were widely used.[52] While it was essential to transport women if they lived some distance from their work, they were also transported even if they were within easy walking distance of their work.[53] Where given, it was supplied to work in the morning and also at the end of the day. If transport was supplied, the workers could reach their work in as short a time as possible, as not all farms were within easy distance of bus stops or were within easy walking distance of their homes.

Employers arranged for women to be collected each morning at assembly or collection points where they would also be dropped off each night. While some had one central collection point others had a number, especially if the workers were collected from different parts of villages or from different villages.[54] As women had to be in the field at an early hour to start their work, they had to meet some time before it started so

that they could get there in good time. If they had to be transported over long distances, as many were in latter years, they had an early start to get to their collection point.

HOURS AND DAYS OF EMPLOYMENT

The hours when women were employed varied according to a number of circumstances. Usually they had to be employed on the same hours as the farm staff so that all the labour had to be as efficiently used as possible. Where they were employed alongside labour from other sources, such as Irish migratory workers, it was for the same number of hours, and they took their breaks at the same time.[55]

The number of hours worked by the casual workers was generally the same as the farm workers. When their hours became shorter so did those of the casually employed women.[56] After the Second World War they started at either 7.30am or 8am, hours which they also started work in later years.[57]

A number of breaks were given during the day. "Breakfast" was given at 9am or 9.30am, and lasted fifteen minutes; lunch or dinner was at noon, and lasted one hour; "minutes," a short break at 3pm lasted for fifteen minutes. Work finished at 5pm.[58] It was usual for the short breaks to be taken out in the field. Although lunch was mostly eaten in the field, it was sometimes taken at the farm steading. However, not all farmers wanted the workers to come into the steading because of the risk of vandalism and

stealing. A field recording about local women and youths employed from Leith during the 1930s reveals that they "would be climbing hay stacks," or stealing eggs, a ploy which is noted among a number of squads even in later years.[59] Farmers report that they had to lock up the steading when the potato workers arrived.[60]

When the workers ate their lunch in the field they looked for a sheltered place, such as in the hedgerows, to sit. After potato boxes were introduced, they could shelter behind them or turn them up and sit in them (Fig. 6.1).

FIG 6.1. WOMEN SITTING BEHIND A POTATO BOX

Source: Field work, Hermiston, Currie, Midlothian, October 1990.

Throughout the period of study the number of days employed varied. As for all farm workers and all types of workers, work was undertaken from Monday to Friday. Employment at the weekends was more varied. Great variations existed for a Saturday. Until the early twentieth century, farm workers were employed all day Saturday.[61] Around the First World War, farm workers in Midlothian had secured a concession that they were only employed until noon, and were given the rest of the day off as a half holiday.[62] Into the 1980s some farms employed the workers for a whole day on Saturday; others did not work on that day.

On a Sunday no work was undertaken well into the twentieth century. Even when Sunday work started to be more commonly undertaken some farmers would not work on that day. However, field research suggests that particularly during the 1980s and the 1990s the hours of employment were very flexible, especially among potato merchants who had large acreages to harvest in a short period. At Aberlady Mains women and other local workers were employed for varying hours at the weekend:

> You got the odd Saturday, they worked the odd Saturday, Saturday morning as a rule eh, during the early potatoes. It was different after you started liftin the lates. You usually worked on Saturday. Sometimes they didn't work on Saturday, they had to work on Sunday. They would come out on Sunday. If you tried to get them out for seven days in a row you just didn't get them out on a Monday. What happened was they always wanted one day a week off which you could hardly blame them.[63]

George Lambert of the potato merchant Alex Denholm of Musselburgh notes that the "good" workers would not come out at the weekends, unless the workers were stopped work owing to wet weather or inclement conditions.[64] At Aberlady Mains there were further variations in the days which were worked during the harvesting of the maincrop:

> If it was turning late in the year, the weather was bad and the forecast was good for Saturday and Sunday, we says right we'll go Saturday, Sunday eh, you would have a squad on Monday. You says maybe work Saturday morning wae them, and let them away Saturday afternoon and they were quite happy to come out on Sunday.[65]

DRINK

During the second half of the nineteenth century beer was given to the workers at the potato harvest. However, it is not known whether this was for the regular workers or for those who were casually employed.[66] Beer was given as part of a larger tradition of drink practices during harvesting work, not only in the Lothians but elsewhere in Scotland.[67] For example, on 2 November 1865 payment was made to "J. Richardson, beer for harvest and potato lifting £29.6.0."[68] For the potato harvest, beer continued to be given until the 1880s at Whittinghame, when the practice appears to have been discontinued.[69] However, at that time, it is not known whether it was still given on other farms. For the grain harvest the practice had died out by 1919.[70]

During the twentieth century, a hot drink was given instead of beer. It could comprise hot water, to which workers added flavouring, for example to make coffee. Alternatively, tea was also given, as it was at the grain harvest.[71] Field recordings reveal that a hot drink was given by some employers until fairly recent times, and as late as the 1980s. By that time it was more usual for workers to bring their own hot drinks in thermos flasks, or else fizzy juice or other drinks.[72]

The hot drink was supplied in various ways, depending what was found convenient. Water was usually obtained from the farm.[73] If the workers were working near the steading they were taken into it to take their drink there.[74] As that was not always possible, the heated drink was also brought out to the field by the ploughmen, or other members of the farm staff. On some farms the water was heated up in the field, using a gas ring sheltered by potato baskets.[75] Usually the drink was given at lunch time.[76]

FOOD

The giving of food at the potato harvest was reported in the 1860s and 1870s on the Whittinghame estate in East Lothian. Like the giving of beer, it formed part of the tradition of giving food and drink to workers when crops were harvested, into the late nineteenth and early twentieth century.[77] Food consisted of bread or baps. It is very likely that the practice declined when the tradition of giving food to harvest workers did. Employers had reasons for giving food. In East Lothian "precious and valuable"

time was saved during the day as the workers did not have to spend time returning home to eat their lunch, and so work could start promptly after they had eaten their meal.[78]

Throughout the twentieth century, the women supplied their own food. They brought it with them in the morning when they went to work.[79] Some employers also let the women stop at the shops on the way to the fields so they could obtain further provisions such as "biscuits and chocolates and fags."[80] Although most women brought their own food with them, as they were employed some distance from their homes, a small number who lived in close proximity to the fields, as at Barbachlaw, Wallyford, were transported home at lunch time, and ate their meal there. That practice was adopted there as the women worked a shift system, working for a morning or afternoon, and could therefore go home after their work or some be brought out to it.[81]

SANITARY FACILITIES

During the period of the study very few sanitary facilities were provided for the women. Usually they went behind a hedge, or into nearby woods. When potato boxes came into use from the early 1970s in the Lothians, they could also go behind them.[82] Very few employers took steps to make any provision for sanitary facilities in the fields. However, at Learielaw, David Dandie provided basic facilities:

> There were nothing very fancy. But there was what we sometimes made frae bales o straw or you know frame it wae wood or put something, two or three bunches of wheat straw roon aboot it, that's all.[83]

On some farms, facilities could be used at the farm steading. At some farms, such as Dolphingstone at Tranent, there was a toilet at the steading which the workers could use at break times, if they were employed in neighbouring fields.[84]

WAGES

Women who were employed on a casual basis at the potato harvest were paid according to the time they spent gathering in the field. When they were employed by labour contractors during the 1980s and early 1990s they were paid by the day and the half day. If they had to stop work owing to inclement conditions, for example in the middle of the morning, they were paid for a quarter day.[85] As the crop could not be harvested in the rain or in inclement conditions, they did not receive a steady wage from week to week. During some weeks they received a full wage, and in others payment for only a few days.

Wages generally increased throughout the period 1870 to 1995. However there were short term fluctuations in the wage rate. For example, in the Haddington area of East Lothian, for the 1927 harvest casual women's wages were 4s a day; during the following year it was 4s. 6d.[86] By 1932, when the crop was an

unprofitable one, the rate had again dropped to 4s a day. A higher figure could not be "justified" owing to the poor potato prices.[87]

Although details of their wage rates are fragmentary, by 1886 women casuals were employed at 1s. 6d. a day, as at Newbattle Home Farm.[88] During the 1890s women were paid 12s. per week in East Lothian and Midlothian, the same rate as in some of the largest potato growing counties such as Fife and Angus.[89] Wages increased greatly during the First World War.[90] After the introduction of the Agricultural Wages (Regulation) (Scotland) Act, 1937, wages were subject to fixed wage rates.[91] Oral evidence suggests that by the 1980s wages had to be high enough to act as an incentive for workers to "get them out the house" and take up the employment. Women received varying wages from £13 to £20 a day for a "real regular" who was skilled at the work.[92] Oral evidence also reveals that there were variations in the amount given to some workers in a squad. Where they could not gather as quickly and held up the digger, their stent was reduced, and so too was their wage. Some members of the squad, especially regular workers who were particularly skilled at gathering, were given additional money. Such a practice was not made open among members of a squad.[93]

BOILINGS

A boiling was a "perk" of a small amount of potatoes which the casually employed women took; they did not ask for it. Some thought it was "a given right to them." Field evidence suggests

that workers liked to get it as they saw it as an important part of the employment conditions.[94]

The boiling was widespread across the Lothians and throughout Scotland, where it was given to all types of casual workers. However, not all farms gave it. Some employers thought there were advantages to giving it, particularly in an area where labour was in short supply. Where workers could get it they preferred to go to those farms, rather than to those which did not give it.[95]

Although there was a few exceptions, one boiling was taken each day, usually when work was about to finish or was finished.[96] Its size varied greatly from a few potatoes to an amount large enough to fit into a lunch bag to a very large quantity, even up to a hundredweight. There was a tendency for workers to take a large amount. The words of Jessie Landells could be equally true of other workers: "a bilin was as much as ye could take, if ye could get away with it."[97] One agricultural newspaper in 1937 shares a view taken by employers: "the present-day size of the average 'boiling' would give the impression that most potato workers run communal kitchens."[98] Boilings tended to be larger rather than smaller in size.

Large boilings could be difficult to carry home. Where workers were transported to and from their work it was perhaps easier for them to take large quantities as they did not have to walk far with them:

> This 'boiling' would not attain such large proportions if they had to carry it home, but when it is transported for them it is only

> limited by the carrying capacity of the bus. Anyone who wants to see what a size the 'boilings' have grown has only to be at the bus emptying places at Tranent and Prestonpans between five and six o'clock any evening. All the stay-at-home relations of the workers are there to meet the bus which brings home the potatoes and the workers, and have provided themselves with all kinds of transport from go-cars and prams to herring boxes fitted with shafts and wheels.[99]

If workers wished to take large quantities and they had to walk home at the end of the day they sometimes hid them behind hedges so they could pick them up when they got assistance from friends and relatives. In some cases there was a trail of potatoes along the road from the field to the nearest village from which they came.[100]

Although workers could eat the potatoes themselves, they could also give them to relatives. If they had too many it was known for some to be sold in public houses or to chip shops.[101] The presence of boilings also had a greater effect on the local community. George Lothian comments that:

> As soon as they got into the tattie field the sales frae the local wholesales went down. They were obviously taking more than what they could use themselves and sell them at next doors. The shops had a hard time o it until the tattie time was over.[102]

Where large quantities of potatoes were taken, the custom of the boiling was abused and they were stolen rather than taken. Many farmers and potato merchants who were interviewed, comment that the boiling created many problems for them.[103] Workers would get greedier and the varying amounts of potatoes would cause discontent among the workers. Employers also lost large quantities, especially where they had large acreages to harvest and where workers had to be employed for a period of weeks or months. As a result, many employers took steps to reduce the amount of potatoes taken, and ensure that the workers were actually given a boiling.

The size of the boiling could be limited in a number of ways. Steps were taken to reduce the amount of potatoes taken. For example, during the 1950s, when the subject of boilings was discussed by the National Farmers' Union of Scotland, they agreed that workers should be given a standard size of boiling.[104] Oral evidence from the western districts of East Lothian reveals that a bag of a certainsize, such as a sandbag, was given to the workers on their first day at work and was refilled each day.[105] Farmers and potato merchants from other areas adopted their own methods. At Williamson of Broxburn, "we allowed them to take a poly bag home, that was a poly-bag per person, a co-opy bag [co-op bag] type of thing." At Learielaw, Pumpherston, the horseman allocated an amount of undressed potatoes to each gatherer, from the last cart filled each day. At Freelands at Ratho and Orchardfield at Kirknewton, workers were told that if they did not take potatoes during the time when they were employed they would get a hundred-weight bag (112 lbs) delivered to their door

at the end of the season. At the former, if they were caught taking potatoes they were not to be given the bag. The latter system had a number of further advantages. Where workers had to walk home from their work there was no trail of potatoes along the road; where they were transported there were also none thrown at other squads or at moving objects. Additionally the workers liked the system as "they didn't have the bother of taking a bag of tatties home."[106]

However, these practices could still be abused. When the sandbags were used some workers sewed an extra piece of cloth around the top of them so that they could make their bag larger and get more potatoes into it.[107] Where no potatoes were to be taken, workers continued to conceal them. John Galloway recollects that:

> There was one Jean Baxter, big Jean Baxter fae Stonyburn. She was aye last to go onto the lorry an it was a fellow MacGill fae East Calder that was the driver at that time. He says 'You'll soon need a cran to get Jean on the lorry.' I says 'What do you mean?' He says 'Just watch!' She's no that heavy, Jock, come on. Aye she's heavy alright.' He says, 'Have a look.' She'd the lining o the sleeves split here, the sleeves were both full an' the whole bottom o the coat. She'd two or three stone o tatties in it. This was them trying to get her up into the motor![108]

Where there were problems with the size of the boilings employers and gaffers took steps to ensure that they stopped the practice from being abused. They told the workers to reduce the amount of potatoes they took.[109] One fieldsman stood at the bus

door when the workers were boarding the bus and took any potatoes which he found from the workers. Lorry drivers were also told to watch how many potatoes were taken onto the lorries. The workers' transport was also stopped before it left the field at the end of the day so that it could be searched. Potatoes could be taken from the workers and they would be told during the following day that they should not take any. While these steps were sometimes carried out regularly, they could also be undertaken where it was obvious that workers were clearly abusing the custom of the boiling.[110] John Anderson of Williamson of Broxburn notes the latter practice:

> I had one wae the local squad one night up at Kirknewton. And I passed the truck and the truck had more tatties than what the trailer had. So, we just told them. And they just says it wasn't ours. So we went and emptied it. The trailer stopped and emptied it on the way past. So when they finished at night and they came to their truck it was all empty. So there was all hell let loose the next morning. And so we says right, anyone that has anymore than a boiling and we'll have the police here tonight. And that stopped it, we had no more problems after that.[111]

George Lothian from the potato merchant Galbraith and Roy also points out that it was necessary to impose authority over the workers: "you would be there [in the field at the end of the day] to put the fear into them."[112]

COMPLAINTS ABOUT EMPLOYMENT CONDITIONS

Field recordings show that workers complained about aspects of their employment conditions. The stents, which regulated the amount of work each gatherer undertook, were a great source of complaint. If they were not properly organised workers were not all given the same amount of work, and undertook differing amounts for the same amount of pay. As John Galloway comments, the person who arranged the stents had to give each worker the same amount of work to undertake "or woe betide ye."[113]

When stents were arranged or "stepped out" before work started, workers paid great attention to see that they were all the same length. Some women counted the number of steps the farmer or gaffer took between each stent marker to ensure that none were either longer or shorter than the next.[114] As the stent markers had to be moved when the digging progressed throughout the day, some could become longer or shorter than others, especially where workers themselves moved the stent markers. Generally, however, workers were not allowed to touch the markers; that was the sole responsibility of the farmer or gaffer.[115]

The area of ground where one stent started and another ended was also subject to complaint, as it marked the division where one person's work started and another ended. As not all gatherers gathered cleanly up to the marker, they left some potatoes for the next worker to gather; this was called "the scatter."[116] However, as gatherers liked to gather only the amount

of drill, or stent, which was allocated to them, they would not gather the potatoes which belonged to another worker, and left them on the ground.

Where mechanical implements such as the spinner or elevator digger dug the crop, workers complained about the speed at which the drills were dug. Although both worked best if they were not driven too fast, because of the risk of damaging the potatoes, their speed could be altered. If there was a heavy demand for potatoes which were sold straight from the field, or if there was a large acreage to be cleared, the speed of the digger could be regulated to undertake a greater amount of work. However, when the digger was driven faster the workers had less time to gather their stent and had to hurry to get the ground cleared and they only had a very brief stop before the digger returned and they had to gather the following drill. No matter how fast the digger went, it was essential that the workers got "their back straightened between turns," or a short break.[117] If the workers had to rush to gather the potatoes and did not get their short break, they did not think that their working conditions were acceptable. Field experience at Hermiston shows that there was a thin divide between what workers thought was acceptable and what was not.[118]

Although women potato workers did not belong to a union they could protect their employment conditions themselves.[119] If they had any complaints about their employment conditions they could try to improve them in various ways. If individuals were not happy with the length of their stent they could stand up for

themselves to voice their problem. George Lambert comments that if they had any complaints "they voiced them quite well."[120]

In some squads a spokeswoman was appointed to look after the workers throughout the duration of the potato harvest:

> She was the head of the house, you know. If she said it was all right with her then it wasn't long until it was with the rest. But if it wasn't all right with her it wasnae all right with the rest. She had a bit of grip too. If stents were too big, or if things weren't right or if they were wanting an extra shilling, she did the speaking.[121]

Other squads which did not have a spokeswoman of this kind appointed a leader who acted as a spokeswoman for voicing their complaint if a problem arose. She was appointed until it was rectified.

Women could take their complaints to a number of people in the potato field, depending on how the squad was employed (direct employment by a farmer, or employment through a gaffer or labour contractor). If the farmer was working in the field, the spokeswoman could speak directly to him; if he was not, she could speak to the farm grieve, the farm foreman, who arranged the stents and oversaw the work. If they were employed by a gaffer she could approach him. Where gaffers could not resolve the problem, and the women were employed by a potato merchant, he could be called upon to settle the matter.[122]

In the first instance individual workers could say that they were unhappy about conditions. If, for example, they thought that

their stent was longer than the neighbouring one, they could get the gaffer to "step that stent" to see that it was the same length.[123] Where the digger driver drove too quickly, the workers shouted at him that they did not have enough time to gather their stent. Field observations also reveal that where workers were happy with the speed of the digger, they would give him sweets and chocolate so that he would not increase his speed.[124]

Complaints were also resolved by other means which had the effect of interrupting the work of the entire squad. If workers were unhappy, they could refuse to work. George Lambert notes that individual gatherers sat down and said that they would not work until their problem, which dealt with the length of stents, was resolved. As all work was held up, the matter had to be rectified as quickly as possible so that work could resume as quickly as possible. Where labour contractors were paid to harvest the crop by the acre, that is they were paid by the amount of work their squad harvested, it was a matter of utmost importance as the squad continued to be paid during the time they were stopped.[125] While workers could complain as individuals, and disrupt all the digging and gathering work on a field, the squad could group together as a collective unit, and all the members stop work until the matter was sorted out, a procedure also adopted where children were employed.[126]

Workers could also protest about their employment conditions in a further way. They could walk off the field, or leave their work, either as individuals or collectively as a squad. Where they did, they terminated their employment and the employer was left with a smaller sized squad or without one. Oral evidence

suggests that some workers felt strongly enough about their employment conditions to walk off the field.[127] Although not all employers experienced this, David Dandie at Pumpherston comments that "one or two were left without a squad."[128] Where a few workers or even the entire squad walked off the field their employer was faced with finding substitute labour which could be difficult where labour was scarce in an area.

PART 5: EMPLOYMENT OF CHILDREN

CHAPTER 7: ATTITUDES TOWARDS THE EMPLOYMENT OF CHILDREN

The question of whether children should be employed was a much debated one during the late nineteenth and twentieth centuries. Not only did this extend to casual employment in agriculture but also to industrial work. These debates show that there was a growing dislike of their employment both in general and at the potato harvest. This was embodied in tightening restrictions on their employment. It must be asked what the reasons were for this changing attitude and what impact these had on the release of children for the potato harvest, and thus the labour supply for harvesting this crop, and in later years, on their employment conditions.

THE TRADITIONAL ATTITUDE TOWARDS THE EMPLOYMENT OF CHILDREN AT THE POTATO HARVEST

During the second half of the nineteenth century the employment of children at the potato harvest was an accepted part of their lives and school life. School Boards approved of children leaving school during term time to assist in agricultural work especially in the 1870s and the 1880s, when children were released from school to help assist at the grain harvest and teachers would not commence teaching new lessons until classes had filled, sometimes not until after the harvest was completed (Appendix 2, Appendix 3). At Newton in 1877 the Board minutes

record that the Board "would not object to the older children leaving the school for two weeks or so for the potato gathering."[1] While there are many examples on a local level which show that School Boards approved of this employment, there are also many on a national level, such as the statutes and other official regulations. The Education (Scotland) Act, 1878 allowed a School Board, and later, a School Management Committee (SMC), to grant exemption to release children from school attendance for agricultural work for up to six weeks in a year. The Education (Scotland) Act, 1883 also stipulated that any "unavoidable cause" such as ordinary rural occupations was a "reasonable excuse" to allow children to be absent from school. Indeed, Article 20 of the Scotch Code, the regulations for day schools issued by the Scottish Education Department (SED), permitted children who had passed the third standard to withdraw themselves from school "if beneficially and necessarily employed," and this was certainly invoked in rural areas.[2]

While many of these examples are from the 1870s and 1880s some could still be found in the 1890s and into the turn of the twentieth century. Barrie, School Inspector for Southern Scotland, did not object to children being employed in the fields as long as they attended school regularly during the rest of the year. In 1898, Walker, School Inspector for the Northern Division, notes how potato planting and lifting, herding and other farm work was by "traditional sanction" considered to be a sufficient excuse for children to absent themselves from school. Even as late as 1901 a circular issued by the SED implies that it did not object to the

release of children for employment "at certain seasons of the year" as long as the provisions of the Education (Scotland) Act, 1901 were followed.[3]

CHANGING ATTITUDES

During the years after the passing of the Education (Scotland) Act, 1872 the attitude towards the employment of children at the potato harvest altered. Although the Scotch Code did not allow teachers to report any "reflections or opinions of a general character" in the school log book, a few made criticisms of children absenting themselves from classes to go to the potato harvest.[4] However, although there are few criticisms in the 1870s, by the 1880s and the early 1890s they are more widespread in the Lothians and in other areas.[5] By 1899 Stewart, School Inspector for the Southern Division of Scotland, calls the "various harvests" a "disturbing element" in the school year, while King, also from the same Division, calls it a "standing grievance."[6] Boards tried to discourage employment, and by 1900 some, like Mid Calder and Kirknewton and East Calder, warned farmers that they should not employ children during school hours.[7]

Objections to the employment of children continued to be noted in some areas of the Lothians.[8] The passing of the Education (Scotland) Act, 1901 gave School Boards a tool to show their disapproval. If no formal arrangements were made to release children from attendance, they could not be legally employed. Boards such as Stobhill and Newbattle, which had made arrangements in the early 1900s, refused to make them in later

years as did Education Authorities such as Midlothian after 1919.[9] By the mid 1930s the employment of children was even more objected to, and as a result children could not be employed in some districts of Scotland, such as the south-east. As potato growers in that area had managed to harvest their crops without their assistance, the Caithness Committee saw no reason "why the practice of employing children on work of this nature [at the potato harvest] should not be entirely abolished throughout the country."[10] Such criticisms became even more intensified in later years, and especially after the end of the Second World War.

WHY DID THE ATTITUDE TOWARDS THE EMPLOYMENT OF CHILDREN CHANGE?

The principal objection was that it interfered with their education and caused some educational loss. Their education was affected in various ways. If children were released during school hours, they missed classes and their work fell behind that of the pupils who remained in class, and was retarded, sometimes "considerably."[11] However, the disruption also affected the children who remained in class. As not all pupils were present, work could not continue at its usual rate, and could become hindered.[12] At its worst, "progress" became "difficult," or work was much retarded."[13] It was also difficult to undertake any new work, and sometimes lessons were confined to revision.[14] Classes were also combined or cancelled, as were specially organised field trips.[15] However, the disruption was not only confined to the period when the children were absent from class, but continued

even after the children returned. All new work undertaken during their absence had to be repeated, and the class was held back until it was completed.[16] When children were employed during the potato holiday, their education was also affected either before or after the holiday period commenced or ended. Usually most disruption was caused after the holiday ended and children did not return to school, as they were still engaged in harvesting work owing to poor weather and difficult harvesting conditions.[17] Though usually absent for only a few days, in backward seasons such as 1903 or 1908, children could be absent for up to two weeks.[18] Although the educational disruption was restricted to certain classes when exemption was given, the holiday disrupted education throughout an entire school, including that of children who were too young to be employed. Comments were also made that children were restless when they returned and had to settle back into their class work, and so classes did not proceed as smoothly as if they had been in continuous session.

Educational disruption was more noticeable as it took place during one of the best periods for work in the school year, largely uninterrupted by sickness or other school activities. As one of the Chief School Inspectors comments on the effect of exemption in the 1920s, it was "a somewhat serious break in the continuity of study at a critical time."[19] If children were exempted for more than one year, as many were, it had a cumulative effect on their education.[20] However, when the potato holiday was given, children were in school during the warmest months of the summer, a time thought to be unsuitable and unsatisfactory for teaching.

The absence of children from school also affected both the running of schools and their efficiency. School attendance had an effect on the amount of grant given to School Boards both at times when fees were charged to parents, and after 1893 when education was funded by the government, and free education was given.[21] After 1893 the payment of grants was conditional on "the attendance and proficiency of the scholars, the qualifications of the teachers, and the state of the schools." If schools were efficiently run, then grants were paid according to the average number of pupils in attendance during the year. The "normal grant" was found by "adding together the attendances of all the scholars for that same period, and dividing the sum by the number of times the school has met within the same period; the quotient is the average number in attendance."[22] Poor attendance, from causes such as the potato harvest, other agricultural employment, or general absenteeism, led to a lower annual average attendance, and a reduced school income. Because of the loss of revenue some Boards objected to the employment of children. For example at Ratho in 1916, farmers who employed children at the potato harvest were charged for the loss of fees incurred during the time the children were employed.[23]

Criticism of the employment of children at the potato harvest started at a time when there were general steps being taken to increase the standard of education and its value in a child's life. As poor school attendance was regarded as "the root of all the shortcoming in the schools," steps were taken to improve it, not only at specific times of the year, such as at the various

harvests, but also generally throughout the year.[24] Also, as schools tried to reduce the amount of illegal employment which occurred when children left school without permission, greater steps were taken to discourage it (Appendix 4).

Criticisms were made when there were changing attitudes towards the role of children's holidays in their lives, and thus the function of the potato holiday. In 1919 J. J. Findlay, Professor of Education at Manchester University notes that:

> Until recently no one questioned the propriety of getting children to pick up potatoes, for it is a job suited to their capacity; they are quick and alert; no great skill is required.[25]

He saw how the function of school holidays in general had changed:

> Children ought to be at school in the autumn; holidays ought to be given as playtime for the children, so that they might be entirely free from tasks to do as they please. The children "work" during the school season; when vacation comes both teachers and scholars ought to rest from their labours and enjoy themselves.[26]

At the time these comments were made at least two Education Authorities, Midlothian and Fife, declined to arrange a potato holiday.[27]

After the Second World War further criticisms were made as a result of the moral effect which the potato harvest had on children as it was thought to influence them in negative ways, thus negating the education they received at school. In 1956 one headmaster in Berwickshire made a comment that the time spent in the fields led "to a coarsening in speech and manner, indiscipline etc."[28] One speaker at a conference of the Educational Institute of Scotland (EIS), the teachers' union, in 1955, extends the point further by commenting how children "developed bad habits:" "swearing, coarseness, smoking and hooliganism. Perhaps the bad habits were already there, but the potato harvest certainly acts as a forcing ground for them."[29] In 1959 G. M. Thomson, MP for Dundee East, could comment that:

> Every school master in Scotland with experience of the problem will say that it is really impossible, in most cases, ever to get the children back into normal education routine when they return from the potato harvest. They have had a whiff of the freedom of working life and they resent coming back to normal school discipline. Not only that. They have earnings which, even by modern standards, are fairly attractive to them, and they have become accustomed to spending a lot of money on smoking in the freedom of the potato fields or in the evenings on entertainments. Two or three weeks later, when they return to the schools, they find they no longer have this unexpected pocket money. All sorts of problems are created - petty pilfering, an increase in juvenile delinquency and so forth.[30]

However, these problems were not found everywhere. The Rose Committee suggests that they "may be more serious in urban areas than in rural areas."[31] Indeed, Sir James Duncan considers that Thomson's claims were "rather exaggerated" and were "unfair to the general run of the children" a view also supported by views expressed in the national press.[32]

EFFECT OF THE EMPLOYMENT ON CHILDREN

While many educationalists thought that children should not be employed at the potato harvest because of the adverse effects it had on their education, the work was also seen to benefit them in a number of ways, even educationally.

In the early twentieth century a number of observers comment that the work improved the children's health, a fact also noted for other types of agricultural employment. In 1900 Whyte, School Inspector for Perthshire, notes how it had "a decided physical benefit to those engaged in it."[33] Others extend his statement further, and comment how in "small proportion, and during good weather, [it was] profitable alike for mind and body."[34] Similar comments are also expressed into the second half of the twentieth century.[35] Indeed, there was an "improvement in physical condition" of children sent out from schools in Glasgow. It was also thought that the work set the children up in health for the winter months.[36] In Fife and Easter Ross the schoolmasters suggest that they could undertake their lessons better.[37]

Employment at the potato harvest was considered to be an educational experience in the broadest sense of the term. It gave children the chance to undertake paid employment.[38] Especially if they came from an urban environment, they extended their knowledge of the countryside, farming, farming practices and food production.[39] Indeed, some schoolmasters, educationalists and Inspectors of the Department of Agriculture for Scotland (DAS) consider that the work had varying degrees of educational value.[40] A letter which appeared in the Scotsman in January 1961, shows how they learned values which they would not have done at school:

> My own education was greatly enhanced by a few weeks tattie howkin'. I learned a lot that my years in that fine school overlooking the Fair City [Perth] could never have taught me. I discovered that the lure of money induced me to perform and endure miserable tasks which are part of a farm worker's everyday life. I also discovered the injustice of a bigger 'bit' to work than my neighbour, for the same pay. No lectures in politics could have impressed on me more than that hard fact. On the other hand, the watch I purchased with that money delighted me more than any gift would have done. It was like a complete course in economics.
>
> I encountered the vernacular which made my later reading of 'Lady Chatterly' a less novel experience than I had imagined it would be, but I was able to try my abominable German on some unfortunate prisoners of war who worked besides us (my tattie times took place over a number of years) [circa 1940s]. A tractor is less mysterious to me than a car; I could at a pinch build my own pit; as a housewife I

know the difference between a Kerr's Pink and a Golden Wonder.[41]

These benefits, however, were not uppermost in the minds of educationalists and others when they objected to the employment of children at the potato harvest; they were more concerned with the effect it had on education and the school curriculum.

HOW WAS THE ATTITUDE TOWARDS CHILD EMPLOYMENT EXPRESSED AT A TIME WHEN THERE WAS MUCH CRITICISM OF IT?

During the latter part of the second World War and until 1962, when children could be released for employment during school hours, the criticism against the employment of children was at its greatest as a result of the continued need to employ children on a high level for many years. Throughout the period, criticism was expressed in various ways.

The 1944 harvest was a protracted one and teachers and educational bodies were particularly concerned about the effect that this disruption had on children's education. As a result, protests were made that children should not be employed. In Midlothian in 1945 the School Attendance Sub-committee moved, though unsuccessfully, not to make any arrangements to release children for the potato harvest. In neighbouring West Lothian headmasters thought that children should not be employed where there was other labour available to harvest the crop.[42] The EIS

attempted to withdraw all assistance from its members in assisting to release and supervise children and resolved that 1945 should be the last year in which children should be utilised for work at the potato harvest.[43]

Protests also continued in the following year, 1946, primarily in areas where children were employed during school hours. In Glasgow, Ayrshire, Midlothian, West Lothian and Renfrewshire Education Committees no arrangements were made to release children while Stirlingshire Education Committee said that it "would do everything to lessen the employment of children participating in the potato harvest." In Fife, one of the major areas where children were employed, attempts were made to end their employment.[44] The effect of all these protests was to disrupt harvesting arrangements across the country. In addition, the practice of billeting children, or accommodating them in the growing areas, perhaps the most objectionable part of the national scheme to organise child labour for the potato harvest which operated at that time, was temporarily dispensed with during this year, though it was used again in the following year, 1947.[45]

ATTITUDES TOWARDS THE EDUCATION (EXEMPTIONS) (SCOTLAND) ACT, 1947

During the operation of the Education (Exemptions) (Scotland) Act, 1947 from 1947 to 1962 there was great opposition to the giving of exemption which enabled children to be employed during school hours at the potato harvest. Because of

the opposition to the employment of children, the introduction of the Act was a sensitive matter. The drafting of the Bill shows that the government departments were aware of criticisms they were faced with in introducing it, which was necessary on account of legislative changes brought about by the Education (Scotland) Act, 1945 which no longer enabled children to engage in profitable employment, such as at the potato harvest during school hours, and the need to employ children as a result of shortages of labour.[46] In the first drafts it was to have remained in operation until 31 December 1950.[47] That date indicates that the Departments were aware that the labour situation would be acute and children would have to be employed until that date. However, it was thought undesirable that it should remain in operation for as long. A note from Parker of SED to Grainger Stewart, Assistant Secretary, St. Andrew's House, on 24 February 1947, suggests the difficulty they had in appointing a date:

> I am sure that we in this country should get into very hot water with educationalists and the agricultural workers union if we were to suggest in any way that the system of exemptions might go on for several years. There has been very strong opposition to the continuance of the scheme for this year and our late Minister and the Minister of Agriculture also have had to do what they could to allay fears that 1947 might not be the last year.[48]

On 8 March 1947 the Home Office sent a letter to the SED which points out that the regulations which enabled exemption to

be granted in England and Wales would expire on 31 December 1947.[49] As it had not been decided whether the Regulation would be extended, the Home Secretary and the Minister of Education would have found it embarrassing "if it should be decided to resist any pressure for the employment of school children in agriculture in England and Wales in future years." Instead, the Bill was to continue until 31 December 1948 when it could be renewed under the Expiring Laws (Continuance) Bill.[50]

In both the House of Lords and the House of Commons there was much regret that the Education (Exemptions) (Scotland) Bill was introduced, although it was realised that it was essential that children had to be released from school to harvest the potato crop and to produce as much food as possible during a time of national food shortages.[51] At the Committee Stage Mr Stephen made a comment that "educational opinion is against the passing of this Bill" while Alexander Anderson, MP for Motherwell, suggests that the debate had "not been in favour" of it.[52] Tom Fraser, Joint-Under Secretary of State, who introduced the Bill into the House of Commons, did not like it on educational grounds. He hoped to bring it to an end as soon as possible; a view which is also expressed in all the memoranda and circulars issued by the SED.[53] For Lord Balfour of Inchrye, it was a "political anomaly" of a socialist government which had decreed the use of child labour as it marked a step towards a greater measure of juvenile employment at a time when greater educational facilities and opportunities were available for them, as the Bill allowed children to be specially employed when they could not be at other occupations.[54]

Both the Act and the employment of children continued to be criticised. The Harvest Labour (Scotland) Committee of 1949 to 1950 was well aware of the "strong body of opinion" against the employment of children, and as a result, felt it necessary to issue an interim report to draw attention to it and to stress the importance of "co-operation by all concerned in the interest of the nation" in obtaining sufficient labour to harvest the potato crop.[55] The Committee notes how much of the opposition was based on certain misconceptions which were not "founded on a full knowledge and understanding of the [labour] position as it exists today": people thought the children were employed as "a ready means of overcoming a difficulty, which it is held could be met in other ways."[56] Although this report and the final one of 4 April 1950 show how it was essential for children to be still employed at the potato harvest, neither stemmed the continuing criticism against their employment.[57]

Changing economic conditions in the early 1950s brought difficulties in renewing the Act. The food situation had improved, with the result that rationing was brought to an end in 1954, and therefore the economic situation which had brought about the introduction of the Act no longer existed.[58] In England and Wales the labour situation was less problematic and the regulation which allowed children to obtain exemption from school for assisting in harvesting crops expired on 31 December 1953.[59] However, in Scotland there were still labour shortages and it was necessary to continue the employment of children and thus the operation of the Education (Exemptions) (Scotland) Act, 1947. As exemption could no longer be granted in England and Wales, the Scottish

government departments were faced with a difficult task in justifying the continuance of a similar measure in Scotland. In October 1953 a memorandum drawn up by the Scottish Office states that if it was not continued as a temporary measure it would have to be replaced by permanent legislation which would have been very difficult to defend.[60] Although the Act continued to be renewed annually, it was criticised. As a result of these criticisms, the Secretary of State for Scotland appointed the Committee on the Employment of Children in the Potato Harvest, called the Rose Committee after its Chairman Sir Hugh Rose, Commissioner of the General Board of Control of Scotland, on 23 September 1955 to "enquire whether it is still necessary for children to be granted exemption from attendance at school for work in the potato harvest and to report."[61] After examining all the labour sources available to harvest the crop and the educational disruption caused by the granting of exemption, "a major factor in determining any answer to the question posed in our remit,"[62] eight of the nine members - George Middleton of the Scottish Trades Union Council indicating dissent[63] - came to the conclusion that:

> We are forced to the conclusion that it is still necessary to exempt children from attendance at school to assist in lifting the potato crop if the acreage devoted to this vital crop is not to be drastically curtailed.[64]

Although their report shows that there was a need to employ children, it did not stop continued criticism of their

employment and the Education (Exemptions) (Scotland) Act, 1947. A note for the debate for the Expiring Laws Continuance Bill in 1957 suggests that the situation had become even worse as "it is becoming increasingly difficult to convince Education Committees of the need to use school children."[65] Even after Niall MacPherson, the Joint Under-Secretary of State for Scotland, announced during the debate for the Expiring Laws Continuance Bill in 1959 that the Act was to terminate after the 1962 harvest there continued to be protests.[66]

EXPRESSING OPINION AGAINST THE EMPLOYMENT OF CHILDREN AT THE POTATO HARVEST FROM 1947 TO 1962

Disapproval of the release of children from school and their employment at the potato harvest was shown by politicians, Education Authorities and teachers.

Politicians expressed their disapproval during the debates of the Expiring Laws Continuance Bill in the House of Commons undertaken annually or biennially to extend the operation of the Act. They continued to refer to it as an "admittedly objectionable Act" and "something wholly undesirable and a regrettable necessity for the time being" whose life should be made as short as possible.[67] On a number of occasions one MP, G. M. Thomson of Dundee East, moved that it should be removed from the statute book.[68] As the operation continued for many years, it was becoming accepted "as a permanent thing" that children should work at the potato harvest.[69] From 1958 onwards opposition members criticise the government for bringing the Bill forward

for renewal at a time when the potato harvest was only recently completed and Education Authorities and the DAS had not completed their reports about how their arrangements had worked, or collected information of the numbers employed.[70] Some politicians believe that as long as farmers knew they would get the assistance of children they would not find alternative labour to harvest the crop. Farmers were criticised for not taking steps to dispense with their services, and for not providing enough incentives, such as offering good wages, to attract adult workers to the work.[71]

While MPs made the renewal of the Bill a difficult one, Education Authorities showed their disapproval of it and the employment of children by interfering with harvesting arrangements. As Authorities were legally bound to grant exemption when the Secretary of State for Scotland notified that they had to release children, they could not refuse to do so. However, they could refuse to take steps in arranging labour any further than they were legally bound to do so. For example, they could refuse to organise children into squads and allocate them to farmers and other employers, release teachers to supervise the squads, or arrange for the use of the school meals service to supply a mid day meal to the children. These had a profound effect on the way children were employed. Children now had to find their own employment. Their employment conditions were also affected, and there were breaches in employment regulations. There was also thought to be a greater amount of educational disruption. As children made their own arrangements to secure employment, the schools did not know who was employing the

children and for how long they were employed, and when their employment ended, and therefore the children could absent themselves from school until their exemption ended.[72] Because of the problems Niall MacPherson, Joint Under-Secretary of State for Scotland, appealed "most earnestly" to Education Authorities to co-operate in order to "look after the children in the way that we would like to" in 1956 and 1957.[73] Additionally, in following years, circulars issued by the SED to Education Authorities also refer to this need.[74]

Although non co-operation was a serious problem, only a small number of Education Authorities refused to co-operate. They did so for a number of years (Table 7.1). Many were Authorities which had protested either during 1945 and 1946, such as Midlothian, West Lothian, and Glasgow, and continued to show their disapproval.

TABLE 7.1. EDUCATION AUTHORITIES WHICH REFUSED TO CO-OPERATE BEYOND THEIR LEGAL OBLIGATIONS UNDER THE EDUCATION (EXEMPTIONS) (SCOTLAND) ACT, 1947

Year	Number of Authorities which did not co-operate	Authorities which did not co-operate
1950	4	Ayrshire, Dumbartonshire, Glasgow, Lanarkshire
1953	3	Glasgow, Lanarkshire, Stirlingshire
1954	4	Dumbartonshire, Dundee, Glasgow, Lanarkshire
1955	6 and 1 with limited co-operation	Including Midlothian, West Lothian, Glasgow and Lanarkshire Dundee (with limited co-operation)
1956	6	Including Midlothian, West Lothian, Glasgow and Lanarkshire
1957	5	Including Midlothian and West Lothian
1958	n.a.	Including Midlothian and West Lothian
1959	4 and 1 with limited co-operation	Including West Lothian and Midlothian Dundee with limited co-operation
1960	4	Including West Lothian and Midlothian

Source: SRO, ED54/81; ED54/88; ED54/89.
n.a.: not available.

While some Education Authorities refused to co-operate, others showed their disapproval in other ways. Although East Lothian Education Committee made further arrangements beyond their legal obligations, they also voiced disapproval of the granting

of exemption by making representations to the Rose Committee that the practice should be discontinued even though they were aware that there was still insufficient alternative harvesting labour available in the mid 1950s. They recommended that the DAS should try to find alternative labour for harvesting work, and encouraged the development of mechanical harvesters which would replace the children's services.[75] Additionally, when the number of exemptions notified fell to a very low level, and it was seen that the small number of children released would create difficulties in arranging an organised harvesting scheme, representations were made that the exemption scheme "was unworkable and should be discontinued"; in the Tranent area representations made by the Education Area Sub-committee led to the withdrawal of exemptions in 1960, the last year exemption was granted in East Lothian.[76]

Teachers also showed their disapproval of the employment of children by not co-operating. In early 1950, and again in 1952, the EIS resolved that if children were to be billeted its members would not take any further part in the potato harvest.[77] Very few teachers volunteered to supervise children who were transported to the fields or billeted, and civil servants, officers of the Young Men's christian Association (YMCA) and members of the general public had to be recruited to undertake the work.[78]

CRITICISMS AFTER 1962

Even after 1962, when children could no longer be employed during school hours, criticisms continued to be expressed against their employment out of school hours. By the time the Third Statistical Account of Scotland was compiled for the county of Angus some of its contributors comment on the increasing opposition to the holiday.[79] One minister, Reverend George A. Sefton, must have thought that the tradition was declining or under threat as he comments how "mechanical potato harvesters are now coming on the scene and will, no doubt, become more commonly used when the education authorities abolish the 'tattie-holidays' and child labour is no longer available."[80] There continued to be some opposition to the potato holiday, when in 1983 Tayside Regional Council wished to reduce the two week holiday to only one.[81] There were practical reasons why the holiday should be shortened. Potato harvesting practices had altered greatly with the increased use of mechanical harvesters, which tended to harvest the crop at an earlier date. Therefore a smaller number of casual workers were required and they were employed at an earlier date, an important consideration where children were to be employed during October when there was a smaller acreage to be harvested. As a result, one farmer, John Henderson of Mains of Panmure, Carnoustie, states that "many children are now unable to find work for the whole of their holiday fortnight."[82]

CONCLUSION

The changing attitude towards the employment of children at the potato harvest was primarily attributed to changes in the role of education in a child's life and to general changes taking place in education. By the last years of the Second World War and until 1962 criticism of their employment was at its greatest, and was shown in particular by politicians, Education Authorities and teachers. During this time Midlothian was one of a small number of Education Authorities which disapproved of the release of children, which affected both the labour supply and employment conditions.

CHAPTER 8: METHODS OF RELEASING CHILDREN FROM SCHOOL ATTENDANCE

INTRODUCTION

Of all the casual workers employed to harvest the potato crop, children had their employment most closely controlled by statutes, regulations and by various bodies, mainly educational. Their function was to protect the children's health and ensure they were not exploited. This control was not unique to the potato harvest alone but extended to all types of work, not only agricultural. Any study which looks at the employment of children, particularly their labour availability and employment conditions, has to consider the use of these controls and examine how it affected them. As will be seen in this and the following chapter, they were central to both.

MAKING CHILDREN AVAILABLE FOR THE POTATO HARVEST

Educational bodies had power to release children from school to engage in employment at the potato harvest. During the late nineteenth and twentieth centuries two methods were used to release children: (1) exemption from school attendance; (2) the potato holiday. Both, however, were usually given only during October. Under certain circumstances their use extended into the last week of September and, if the season was a protracted one, into November. Thus, the children's assistance was confined to

part of the potato harvest, the main crop, when the greatest volume of harvesting labour was required.

This chapter looks at the two methods for releasing children for the potato harvest in the Lothians during the late nineteenth and twentieth centuries and the way they affected the labour supply.

EXEMPTION FROM SCHOOL ATTENDANCE

The employment of children during school hours and on school days was controlled by clauses in the various Education (Scotland) Acts. Although they restricted the periods when children could be employed, they also enabled them to be freed from these restrictions. Exemption was a means of releasing a child from school during school hours so that he or she could engage in employment. While there were two types of exemption, permanent (a means of allowing a child to terminate his or her education and leave school a few months before reaching the minimum school leaving age) and temporary, only the latter was important for releasing children for employment at the potato harvest or other agricultural activities such as fruit picking, hay harvesting or potato planting.[1] When used specifically for harvesting the potato crop it was sometimes referred to as "potato exemption."[2] It enabled a child to be employed for a short period from a week to a few months. As a child could receive temporary exemption at an earlier age than permanent exemption, he or she

could be employed for at least two seasons until he or she left school.[3]

As a method for releasing children from school attendance, temporary exemption was used in many counties throughout Scotland, as in England, Wales and Ireland.[4] In Europe documentary sources also point to it as a widespread method in Belgium, France, the Netherlands and Luxembourg. In addition, sources also report it in Canada, the United States, Brazil and New Zealand.[5]

AGE OF CHILDREN

Children could only receive exemption at a certain time in their school years, as defined in the Education (Scotland) Acts, which laid down a minimum age for employment during school hours. Table 8.1 shows that there was a tendency for the minimum age to increase after the passing of the Education (Scotland) Act, 1872.[6] From 1878 various regulations were laid down, depending on the employment to be undertaken. Under the Education (Scotland) Act, 1878 a special concession was given to children who engaged in crop husbandry, the harvesting of crops or in the fisheries, so they could be employed at a lower age than that given for general casual employment. Instead of the minimum age of ten years, it was reduced to eight. However, in following years school log books suggest that most pupils were older than eight years. They were drawn from above the third

standard, and from the fourth, fifth and sixth standards; they were the "bigger" or "older" pupils.[7]

It was not until the operation of the Education (Scotland) Act, 1901 which abolished the requirement for the passing of an educational standard, that children could be employed on condition that they had reached a stated age. Under it, children could be granted exemption and engage in employment at the age of 12 years. While there were attempts to increase the minimum age in 1918 and 1936, it was not raised until 1947, with the introduction of the Education (Scotland) Act, 1946.[8] However, the Act raised the age for exemption to fourteen, and so additional legislation was introduced to allow for the employment of children at the potato harvest: the age was then lowered to thirteen years.[9]

Although the provision for the minimum age for exemption was contained in the Education (Scotland) Acts, School Boards, Education Authorities and Education Committees could use their power to alter the age, as long as it was not lower than that in the Acts.[10] Particularly where they were opposed to the employment of children, they increased the age, usually to a year higher than that provided for in the Acts. Although there are only a few cases, they had an impact on the number of children available for work. In 1947 the Department of Agriculture for Scotland (DAS) estimated that the raising of the employment age reduced the numbers which could be employed from one-third to a half.[11]

TABLE 8.1. THE MINIMUM AGE FOR THE EMPLOYMENT OF CHILDREN, 1872 TO 1962

Act	Age	Educational Standard (if any)
Education (Scotland) Act, 1872	After regularly attending school for "at least three years" between the age of 5 and 13	A child had to attain a certificate "of ability to read and write, and of a knowledge of elementary arithmetic"
Education (Scotland) Act, 1878	Exemption given to a child between 10 and 14 years. When given for assisting in "the necessary operations of husbandry and the ingathering of the crops" it could be given over the age of eight. For other casual employment 10 years	
Education (Scotland) Act, 1883		Temporary exemption was given to a child who passed the third standard; permanent exemption, the fifth standard
Education (Scotland) Act, 1901	12 years	None
Education (Exemptions) (Scotland) Act, 1947	13 years	None. Act continued in operation until 1962

Source: PP Bills, 1946-47, I; R. W. Roxburgh, The Law of Education in Scotland: Text of the Education (Scotland) Acts, 1872 to 1928 and other Statutes Relating to Education in Scotland, Together with Statutory Rules and Orders, Minutes and Circulars of the SED

(Edinburgh: William Hodge and Company, 1928), p. 25, pp. 30-34, p. 38, pp. 50-51.

CONDITIONS OF EXEMPTION: A METHOD FOR REGULATING THE LABOUR SUPPLY

As the power to grant temporary exemption was vested in School Boards, Education Authorities and Education Committees, they could control the way it was granted. All could attach conditions to the exemption. In the Lothians most had to be fulfilled before children could apply; a few, however, were to be undertaken during the time they were absent from school.[12]

Throughout the late nineteenth and twentieth centuries complex changes were made to the conditions laid down, as a result of changes in the Education (Scotland) Acts. While the Acts of 1872, 1878 and 1883 provided that a certain educational standard had to be passed, the Education (Scotland) Act, 1901 abolished it. Instead, Boards could impose what conditions they thought necessary upon the granting of each exemption.[13] As a result, conditions were often intricate, with a number of elements to be fulfilled. Their use was also complex as each Board, Education Authority and Education Committee adopted its own conditions which could contain elements peculiar only to them. Others, however, were common to many.

The conditions were always made from an educational point of view, and reflected the educational bodies' attitude towards the employment of children. Their aim was to protect the children's education, not only at the time of the potato harvest but

throughout the school year. For instance, conditions were used to justify the loss of education and ensure that their absence from school was beneficial. Additionally, they were used to safeguard their general health and well-being, so the children were fit and able to undertake the work at the potato harvest.

Conditions which safeguarded the children's education were numerous. As their education was affected by their absence from school, certain educational requirements had to be made to justify it and the loss of education. While the Acts of the nineteenth century made these compulsory, they were adopted by Boards even after the passing of the Education (Scotland) Act, 1901. While some children had to have a satisfactory scholastic record, or a record of good behaviour, most had to have a good record of attendance over a season or a year, which varied from regular attendance made at other seasons, to a stated number of attendances which had to be made.[14] Table 8.2 shows that the conditions imposed by Boards between 1902 and 1918 were often stringent and ensured that only the best attendees could be released. Boards had differing opinions as to the amount of attendance they thought satisfactory. Even within the period many Boards increased the amount further. While mainly the result of changing educational ideas, they also reflected the disinclination to child employment, as at Stobhill, and to illegal employment as at Kirknewton and East Calder.[15]

TABLE 8.2. CONDITIONS OF ATTENDANCE REQUIRED BEFORE A CHILD COULD BE GRANTED TEMPORARY EXEMPTION FOR THE POTATO HARVEST, 1902 TO 1918

Condition	School Board	Year
Attend regularly at other seasons	Aberlady	1914
	Currie	1902
	Dirleton	1917
	Kirknewton and East Calder	1909
	Newbattle	1903
	Whitekirk and Tyninghame	1909, 1918
70% attendance during past session	Kirknewton and East Calder	1909
75% attendance during previous quarter	Kirknewton and East Calder	1910
80% attendance during year	Lasswade	1903, 1917
	Newbattle	1904
	Newbridge	1915
	Mid Calder	1910
	Stobhill	1906
85% attendance during year	Ormiston	1908, 1909, 1912
90% attendance during year	Currie	1910, 1914 to 1918
	Kirknewton and East Calder	1915
	Newbridge (School)	1914
	Stobhill	1908

Source: "Newbridge Public School Log Book 27.6.1890 to 5.11.1924," 25 September 1914; SRO, CO2/111/2, 1 March 1902, 3 October 1910, 5 October 1914, 4 October 1915, 2 October 1916, 1 October 1917, 7 October 1918; CO2/117/3, 9 September 1909; CO2/117/4, 10 December 1914; CO2/118/3, 7 September 1903; CO2/118/4, 24 September 1917; CO2/119/3, 7 October 1909, 13 October 1910; CO2/121/3, 18 September 1903, 29 September 1904; CO2/126/3, 9 October 1906; CO2/126/4, 5 October 1908; CO7/5/2/5, 28 September 1910, 10 December 1914; CO7/5/2/6, 4 October 1917; CO7/5/2/14, 29 September 1908, 8 October 1909, 14 October 1912; CO7/5/2/17, 30 October 1909, 7 October 1918; CO7/5/2/14, 29 September 1908, 8 October 1909, 14 October 1912.

School Boards particularly note the condition of attendance during the period from 1902 to 1914. At that time, its widespread use was caused by the many attempts made to improve attendance under the Education (Scotland) Acts, and in securing a higher overall average.[16] The Scottish Education Department (SED) must have been concerned about attendance as it made a suggestion that Boards use it as a condition for exemption. Indeed, it was also made statutory under Section 9 of the Education (Scotland) Act, 1908.[17]

Other conditions of an educational nature also safeguarded the children's education. Restrictions were placed on the classes which could apply for exemption. Only those which were not studying for examinations could apply. At Kirknewton and East Calder School Board in 1909 it was only granted to children in the Supplementary Class, a class between the end of the Primary course and the school-leaving age where children did not intend to continue in education.[18] Additionally, in East Lothian during the inter-war years, no children from secondary schools could receive it, unless in necessitous cases.[19]

Not all conditions, however, were of an educational nature. Their purpose was to ensure that children were only employed where there was a need to employ them. Some School Boards would not grant exemption unless a child's home circumstances made it essential that he or she should leave school.[20] In East Lothian between 1930 and 1942, application forms had to state the amount of household income. If children were from households which had a low income, their employment at the potato harvest would contribute some financial assistance to their

household to provide such necessities as winter clothing or boots. If the work was seen to assist the household and other requirements met, children would be released.[21]

Exemption was also given only where it appeared that the children's labour was required to securely ingather the potato harvest, so that the employment of children was kept to a minimum. Throughout the inter-war years East Lothian Education Authority, and later the Education Committee as well as Prestonpans School Management Committee (SMC) adopted recommendations that children should not be given exemption if it would "relieve some other person to take that employment."[22] They could also only be employed "where there existed a shortage of adult labour."[23] As a consequence of the high level of unemployment in the Prestonpans area, exemption could not be granted until the children who were attending, or due to attend, the Junior Instruction Centres were employed. Even in later years children could not be employed until all other available sources of labour were employed; such a condition was central to the Education (Exemptions) (Scotland) Act, 1947 between 1947 and 1962.[24]

Conditions also controlled the extent to which children were employed. They could limit the geographical area where they could be employed. Although found in other areas of Scotland, only one Board in Midlothian, Mid Calder, adopted a policy to restrict the employment of children from the school so that farmers in the neighbouring Board of Kirknewton and East Calder could not employ any children from that area, as no facilities were given for exemption to be granted there.[25] Exemption could also

be limited by only releasing children who had proof they had secured employment.[26]

Conditions also safeguarded the children's health. As there was much criticism of exemption and the employment of children, and as large numbers continued to be required to be employed after the end of the Second World War, the Secretary of State for Scotland thought it necessary to ensure that children were physically capable of undertaking the work.[27] Where children were exempted between 1947 and 1962 Education Authorities had to medically examine a child if it appeared to them that the work would be prejudicial to health.[28] There were, nevertheless, variations in the practice throughout the Lothians and in other counties. The policy in Midlothian followed that contained in the regulations. School log books record only one instance where a child was examined. In early October 1950 Dr Fraser was called to Currie School to examine a boy who was recently ill and wished to obtain exemption.[29] Although it is not known whether he received exemption, there were cases in East Lothian where children failed the examination, as at Tyninghame in 1955 where it was noted in the case of two of the six applicants.[30] In East Lothian, as in Berwickshire, the examination became an integral part of the process for applying for exemption.[31]

While conditions were usually fulfilled before a child was granted exemption, a small number had to be after it was given. These mainly affected the employment conditions, a subject treated in Chapter 10. Like the other conditions, some were used to safeguard the children's education. Especially during the Second World War and the following years, children had to return to

school during wet days when they could not be employed.[32] Others, however, safeguarded their employment conditions and ensured they were not exploited. For example, employers had to pay a certain wage rate, provide transport and give a hot drink.[33]

EFFECT OF CONDITIONS ON THE SUPPLY OF LABOUR

The effect of the conditions placed on the granting of exemption was to impose various restrictions on the supply of child labour. In most cases they reduced the number of children eligible for employment. At some, including Stobhill, Mid Calder and Lasswade, children were refused exemption, probably as they had not fulfilled conditions.[34] While sometimes only a few were refused, at the latter, they formed a large percentage of the number of applicants in 1904 (Table 8.3). At its most extreme the conditions prohibited the release of any children. So severe must have been the "exceptional circumstances" at Dunbar in 1911 that all applications were refused.[35]

TABLE 8.3. OUTCOME OF APPLICATIONS FOR TEMPORARY EXEMPTION FOR THE POTATO HARVEST IN THE LASSWADE SCHOOL BOARD AREA, 1904

School	Applied	Granted	Refused
Lasswade	0	0	0
Loanhead	13	9	4
Roslin	24	8	16
Rosewell	10	10	0
Pentland	8	5	3
Burdiehouse	5	5	0
St. Margaret's R. C. Rosewell	8	6	2
St. Matthew's R. C. Loanhead	6	4	2
Totals	74	47	27

Source: SRO, CO2/118/3, 31 October 1904.

Conversely, the relaxing of some restrictions, usually only undertaken at times of crisis such as the Second World War, enabled greater numbers of children to be released. Table 8.4 shows that in the first years of the War the Education Committees of East Lothian and Midlothian took steps to lift the restrictions placed on the granting of exemption. All extended the number of children eligible for employment. In East Lothian, for example, relaxation enabled pupils engaged in secondary education to be available as well as those from better-off families where their employment was not seen as an essential contribution to the family income. Additionally, in the Prestonpans area, pupils could

be employed even though all those from the Junior Instruction Centres were not. However, some restrictions still continued in operation, as a need to safeguard their education.[36]

TABLE 8.4. LIFTING OF RESTRICTIONS IN EAST LOTHIAN AND MIDLOTHIAN, 1939 TO 1942

Authority and SMC	Restriction	Date Lifted
Preston-pans SMC	Applications for potato and other seasonal occupations should only be considered after the pupils attending the Junior Instruction Centre had been absorbed	1939
East Lothian	No pupils following a course of secondary education could be granted exemption	1940
East Lothian	Applications had to state a household income and reasons for the request	1942
Midlothian	Exemption could not be granted	1939
Midlothian	Children disrupted by evacuation could be released	1939
Midlothian	Children over the age of 13 years could receive exemption	1941

Source: Midlothian Education Authority, Minutes of Meetings, 14.6.1938 to 21.10.1947, 10 October 1939, 11 March 1941; SRO, CO7/5/1/7, 6 November 1930; CO7/5/1/15, 17 June 1940; CO7/5/1/16, 16 March 1942; CO7/5/5/9, 14 September 1937, 4 October 1939.

THE POTATO HOLIDAY

The second method used to release children for employment at the potato harvest was the "potato holiday," "potato gathering holiday," or "potato lifting holiday," a short holiday from school at the time of the potato harvest.[37] It formed part of a tradition of

agricultural holidays given by schools to enable children to engage in agricultural work, such as turnip thinning, grain harvesting, soft-fruit harvesting and hop-picking.[38] Both oral and documentary sources suggest they were widely used as they were recorded in the Lothians, other counties of Scotland, as well as various localities in England and Wales, Ireland and throughout Europe.[39] In 1919, J. J. Findlay, Professor of Education at Manchester University, made a comment that they were given "in most countries in Europe."[40] In later years reports indicate that it was given in Hungary, Austria, Germany and agricultural districts of Switzerland.[41] Oral sources also point to a more widespread distribution, and record the potato holiday until relatively recently in Norway, Sweden and the Netherlands.[42] Reports of agricultural holidays are also found in North America, in states such as Maine and Colorado.[43] It is likely that they are even more widespread than present sources indicate.

While there was wide diversity in the practice of giving agricultural holidays throughout Britain, Europe and North America, they tended to die out in the Lothians and throughout Scotland in the early twentieth century. By the time of this study, the grain harvest holiday had declined as a result of changing harvesting practices, and by 1903 there was "little justification" for arranging it, even though it was found in some localities.[44] Others disappeared in the Lothians by 1919, when Local Authority regulations prohibited their use.[45] However, it was the potato holiday which survived longest throughout Scotland, and was regarded as an "institutionalised custom" in some areas, such as Angus, in the 1980s.[46] As a method for releasing children for

the potato harvest, it has been a potent image in the popular imagination, even though in some instances it was actually exemption that was granted.

ARRANGING THE POTATO HOLIDAY

The potato holiday was organised according to regulations laid down by the SED in the Scotch Code. All holidays were arranged on condition that a school made 400 openings each year, each comprising a morning or afternoon opening lasting for not less than two hours.[47] As long as that condition was met, holidays could be arranged at any time of the year a Board thought appropriate, for example to fit in with agricultural activities or other circumstances. Thus, the potato holiday was not an additional holiday given during the school year, but part of the existing holidays which were rearranged accordingly. It was usual that the summer holiday, which lasted six weeks, was split so that part was given in the autumn and used for the potato holiday; the practice was referred to as "staggered holidays."[48]

However, as a minimum number of openings had to be made, it was difficult to extend the holiday period if emergencies arose owing to poor weather or adverse harvesting conditions. In only three instances in the Lothians was it extended when it was evident that the crop could not be gathered during the holiday period due to exceptionally poor harvesting conditions.[49] However, it disrupted other holidays and curtailed them. Such steps were unusual, and even during the Second World War when

there was a great need to obtain labour to safeguard the crop, the SED did not recommend that it be extended.[50] If additional assistance was required, exemption could be given after the holiday ended.[51]

HOW LONG WERE CHILDREN RELEASED FROM SCHOOL TO ASSIST AT THE POTATO HARVEST?

As exemption and the potato holiday enabled children to be released from school to engage in employment, their length regulated the amount of time children could be employed, and thus be available for work. Although children were usually all released from school at the same time, and thus their labour made available during that period, there were some exceptions where exemption was given especially during the Second World War and until the early 1950s as a result of the great demand for labour.[52] Instead, exemption covered "a specified number of days within a certain period."[53] Additionally, children were sometimes released in batches to enable all farmers from the early farms to the later ones to obtain their assistance.[54]

Whatever method was used, the children were released from school for similar periods of time. The period had to be long enough to cover the time when their labour was required for harvesting the potato crop during October. If it was not, the crop could not be securely harvested and some farmers and other growers would not have been able to complete it without their assistance. If children continued to be employed after their exemption ended, and did not have permission to do so, they were

illegally employed. Conversely, the period had not to be excessively long as children would have completed harvesting work long before they had to return to school. On educational grounds it was also desirable that it did not last too long.

During the late nineteenth and twentieth centuries the length of the exemption period and the potato holiday altered as a result of educational administrative changes, legislative changes and harvesting needs. During the late nineteenth century children could be released for an extensive length of time. Under the Education (Scotland) Act, 1878 they could assist in casual employment for up to six weeks in a year.[55] However, evidence suggests that for potato harvesting they were released from school for shorter periods. At Newton for example between 1878 and until the mid 1880s they were released for between three and four weeks.[56]

During the period 1902 to 1918 variations existed between Boards which resulted from differences in local harvesting needs and the importance of child employment in an area. Table 8.5 shows that between 1902 and 1918 exemption and the holiday lasted between one and four weeks.[57] As much of it lasted two weeks, that period must have been considered an acceptable length in both smaller and larger potato growing districts. When the holiday was given, it was common for the shortest one to be found in the smallest potato growing areas, as at Pathhead, Cranston, Temple and Samuelston, and the longest to be found in the more extensive growing areas.[58] However, not all schools fitted into this pattern. Some of the smallest potato growing areas, such as Fala and Soutra, Borthwick and Spott had a holiday which

lasted two weeks (Fala and Soutra with 11 3/4 acres in 1902, was the parish with the lowest acreage grown in Midlothian).[59] These schools were all small, located in rural areas where there was a relatively small supply of casual labour and children were heavily depended upon for harvesting the crop.[60] So important was their labour at Fala and Soutra that when the holiday was reduced to one week in 1913 it was too short to enable the harvest to be securely ingathered.[61] The longest period of exemption was found in some of the most extensive potato growing areas where there was a great need for labour such as at Dirleton and Dunbar (in 1902 the former had 713.5 acres of potatoes, the latter 1022.75).[62] In the latter area, for example, in 1905 children were absent from between seven to eleven weeks, during the longest exemption period recorded in the Lothians, as they assisted both in the harvesting and in the gleaning after the work was completed.[63]

During this period there were, however, few changes made to the length of time children were made available to assist in the potato harvest. Before the outbreak of the First World War the holiday was extended as a result of problems caused by children remaining absent after the holiday period ended.[64] Educational disruption may have also had an impact where exemption was granted.[65] During the First World War, both were extended as a result of the need to give additional harvesting assistance owing to shortages of labour.[66]

TABLE 8.5. LENGTH OF THE POTATO HOLIDAY AND TEMPORARY EXEMPTION FOR THE POTATO HARVEST

School Board	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918
East Lothian: Aberlady														2 W (H)	2 W (H)		
Bolton															2 W (H)		
Dirleton		3 W (E)						1 M (E)	3 W (E)							2 or 3 W (E)	1 W (H)
Dunbar (Landward)		1 M (E)	1 M (E)						1 M (E)		1 M (E)	1 M (E)		3 W (H)	4 W (H)	4 W (H)	4 W (H)
Gladsmuir						1 W (H)	1 W (H)	1 W (H)	1 W (H)	1 W (H)	8 D (H)	2 W (H)	2 W (H)	3 W (H)	2 W (H)	2 W (H)	2 W (H)
Haddington															2 W (H)	2 W (H)	
North Berwick								2 W (E)					2 W (E)	2 W (E)		2 W (E)	2 W (E)
Ormiston							2 W (E)	1 W (H)					2 W (H)	2 W (H)	2 W (H)	2 W (H)	
Spott			3 W (H)	3 W (H)	3 W (H)									3 W (H)	3 W (H)	3 W (H)	
Whitekirk and Tyninghame								2 W (E)					2 W (E)				4 W (E)
Midlothian: Borthwick		2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W + 1 D (H)	2 W + 1 D (H)
Carrington																	
Cockpen													2 W (E)				
Colinton														2 W (H)		2 W (H)	2 W (H)
Cranston								2 W (H)	1 W (H)	1 W (H)		2 W (E)					
Crichton												10 D (H)	2 W (H)				
Currie							2 W (H)	2 W (E)	2 W (E)		2 W (E)		2 W (E)	2 W (E)	2 W (E)	2 W (E)	3 W (E)
Dalkeith																	
Fala and Soutra				2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	1 W (H)	2 W (H)	2 W (H)		2 W (H)
Kirknewton and East Calder								2 W					2 W (E)	2 W (E)	2 W (H)	2 W (E)	
Lasswade												2 W (H)		2 W (H)	2 W (H)	2 W (E)	
Mid Calder						2 W (E)	2 W (E)	2 W (E)	2 W (E)	2 W (E)	2 W (E)	2 W (E)	2 W (E)		2 W (E)	2 W (E)	
Newbattle		3 W (E)				2 W (E)	2 W (H)										
Newton							3 W (H)								3 W		3 W
Ratho		2 W (H)	2 W (H)	2 W (H)	2 W (H)		2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)	2 W (H)
Stobhill				2 W (E)	2 W (E)	2 W (E)	2 W (E)			1 W (H)		1 W (H)	2 W (H)			1 W (H)	
Temple														2 W (H)	2 W (H)	2 W (H)	2 W (H)
West Lothian: Kirkliston				2 W (H)							1 W (H)						
Livingstone																	

W = weeks
D = days
(E) = exemption
(H) = potato holiday

Source: School log books and School Board minute books.

In following years when exemption was the only method used to release children in the Lothians administrative changes introduced by the Education (Scotland) Act, 1918 also had an effect on its length. In East Lothian exemption was extended to cover three weeks across the entire county.[67] However, during that time not all children were employed for the entire period. There were also local differences reported in one area, Tranent, where detailed papers survive on child employment. In that area exemption in all schools lasted three weeks, except Preston Lodge where it was only two.[68]

The length also altered as a result of the Second World War. The extension in the area under the potato crop, together with the increased need to employ children for harvesting it, led to an increase in its length in the Lothians as throughout Scotland (Table 8.6). It also reflected the difficulties of harvesting the crop. In 1944, a protracted harvest, an additional week was given in East Lothian.[69]

TABLE 8.6. LENGTH OF TEMPORARY EXEMPTION FOR THE POTATO HARVEST IN THE LOTHIANS, 1939 TO 1946

Year	East Lothian	Midlothian	West Lothian
1939	3 weeks	Not available	Not available
1940	4 weeks	10 school days	Not available
1941	4 weeks	10 school days	Not available
1942	4 weeks	15 school days	Not available
1943	4 weeks	15 school days	Not available
1944	4 weeks and additional week	15 school days	Not available
1945	4 weeks	15 school days	15 school days
1946	4 weeks	None granted	None granted

Source: SRO, AF59/23/7, number 46; AF59/23/8, number 2; AF59/23/13, "Potato Lifting - 1945."

Changes were again made from 1947 onwards, as a result of government legislation. While there were variations in the length of exemption throughout the Lothians and in other counties, it became uniform throughout Scotland as a result of the operation of the Education (Exemptions) (Scotland) Act, 1947.[70] Under it, the Secretary of State for Scotland laid down that it should last for up to fifteen school days "in any year" (three weeks). Only in exceptional circumstances could it be extended, and only with approval of one of His Majesty's Inspectors.[71]

In later years when a holiday was given in the Lothians, it lasted only one week. In others counties it was longer, lasting two or more weeks.[72] As it was not arranged as a potato holiday, but as a mid term break, it could not be said to reflect the declining role of child labour.

ADVANTAGES OF EACH METHOD FOR RELEASING CHILDREN

At their simplest, exemption and the potato holiday allowed a school to release children for employment at the potato harvest.[73] Each method was an interpretation of the Education (Scotland) Acts, for how to release children from school. For example, the Education (Scotland) Act, 1901 was "An Act to regulate the Employment and Attendance of Children at School in Scotland."[74] Although many Boards adopted exemption as it was provided for in the Act, some interpreted the Act by giving a potato holiday, specifically referring to it when they decided to give the holiday.[75]

Each method had its own advantages for releasing children, as not all schools adopted both methods. Unlike the potato holiday where all children were released, exemption was selective in releasing children, as it enabled all who wished to be employed to be released, leaving those who did not to continue their lessons.[76] For those who were released, the educational bodies could control the extent of their employment.

Many of the factors which led to the adoption of the methods used to release children were of an educational nature and reflected the need to ensure that schools were efficiently run with little disruption during the potato harvest. Both exemption and the potato holiday were seen as a means of solving the problem of poor attendance. Exemption could control the labour supply by restricting, limiting or assisting (in times of crisis) the numbers employed as well as the length of time they were available. At Dirleton, for example, it controlled the "unauthorised

absence of pupils during potato lifting" and the "diminishing irregularity" of classes at that time; as pupils had to obtain permission from school, they could not simply leave to engage in employment.[77] The potato holiday could also control attendance. Many School Boards adopted it as a way of securing good attendance as children were employed during a holiday period, when the attendance at school was not affected. Where evidence survives there had been poor attendance either in the year immediately preceding its adoption, or for a number of years before it.[78]

Exemption could also regulate school attendance in other ways. Where many exemptions were granted, attendance dropped to a low level, but could be improved by restricting the numbers allowed. While School Boards could control the number of exemptions granted under the 1901 Act, the Scottish Education Department (SED) could instruct a Board to take steps to reduce the number granted so that attendance could be improved.[79] Exemption also acted as a useful lever in securing regular attendance throughout a school year. As children usually had to be good attendees before they could be considered for release they had an incentive to attend regularly if they were to get the privilege of absence from school to work at the potato harvest.

The holiday could be used to solve other problems in running schools at the time of the potato harvest. They included administrative problems such as those posed by regulations placed upon teachers by the Scotch Code.[80] It could, for example, be used to maintain government grants, which after 1893 were partly paid on average attendance, as the question of loss of

attendance incurred when exemption was given, did not arise. As the children were employed during a holiday period no grant was lost.[81]

Both exemption and the potato holiday could be used to control illegal employment (Appendix 4). Each method dealt with the problem in different ways. With exemption, children had to be given special permission to leave school so that they could be legally employed. Children who did not receive permission could not be employed.[82] With the holiday children could be legally employed. Conversely, exemption could stop the practice of children being illegally employed.[83] Moreover, when the holiday was given, Boards did not have to deal with the problem of illegal employment, which had been great in the some Board areas in the year immediately before the holiday was adopted.

USE OF TEMPORARY EXEMPTION AND THE POTATO HOLIDAY IN THE LOTHIANS

SOURCES AND SOURCE CRITICISM

As in other counties where children were employed at the potato harvest, there are gaps in the documentary record which show the method used to release them from school.[84] Across the Lothians the survival of educational records is patchy. Few survive for West Lothian, and there are some large gaps in East Lothian, especially before 1918 when they exist for only 12 of the 25 School Boards. Although the record is more complete for Midlothian, where documents survive for most parishes, there are

still a few gaps.[85] Even in later years the record is also incomplete. However, it does not create as many problems as the documents do record the methods adopted throughout a county.

Especially before 1918 other problems are found with some of the documentary sources. Even where school log books and Board minute books are used in conjunction, it is not always possible to tell whether children were specially released from school. Additionally, while some mention the method used to release children, they do not always refer to it each year. However, such cases are usually confined to the smaller potato growing areas or the small rural schools where few children could be released for work. Nevertheless, although similar problems are found with the documentary evidence in other counties, it is valuable in showing how children were made available as a source of labour for harvesting the main crop potatoes in the Lothians.[86]

PERIODS OF USE

As the use of exemption and the potato holiday to release children for the potato harvest in the Lothians was complex during the late nineteenth and twentieth centuries, a discussion will be confined to certain periods: 1872 to 1901; 1902 to 1913; 1914 to 1918; 1919 to 1938; 1939 to 1946; 1947 to 1962; 1963 to 1990s.

During the period there are very few references to either exemption or the potato holiday. Both school log books and School Board minute books rarely mention if exemption was granted. While it is not known whether it was granted under Section 7 (3) of the 1878 Act in West Lothian, the few surviving Board minute books in East Lothian do not refer to it. In Midlothian, however, there are a few references. At Ratho in 1888, the school log book suggests it as a method to stop illegal employment.[87] Although it is not known whether exemption was actually granted, at Newton the Board agreed to designate a period during October to allow children to assist in harvesting operations from 1878, and until the mid 1880s when it was replaced by the potato holiday.[88] Even in later years there are also few direct references, and only two are recorded, both in the late 1890s.[89]

The lack of documentary evidence may have been due to the way exemption was granted. As children could be released from school after they passed the third standard and were "certified by the managers to be beneficially employed at work when not at school" they could leave school at any time, as long as they had made 150 attendances, which would enable them to be presented for examination to pass to the next scholastic standard.[90] Such would not need to be reported in either the school log books or the Board minute books. However, there also appeared to be other reasons. A comment made by Dr Wilson, the Chief Inspector of Schools for Southern Scotland, suggests that exemption was not widespread. In 1887 he states that "most

members" of the rural Boards in his area were "entirely ignorant" of their power and duty under Section 6 and Section 7 (3) of the Education (Scotland) Act, 1878. He was not aware of a "single instance" where one had granted formal exemption from the restrictions of the Act, or where parents or employers had applied for formal exemption.[91]

During the period there are also few references to the potato holiday. The period appeared to be an evolutionary one, as the first references were made in 1887. While one was the suggestion of a School Inspector advocating the idea, the other refers to its actual use at Newton in Midlothian.[92] Although the holiday must have been adopted in other areas of Scotland, the idea of arranging it was not, however, mentioned by other School Inspectors until 1899 when Mr Whyte, School Inspector for Perthshire, reports it. The idea must have started to gain favour at this time, and in 1901 Mr Walker School Inspector for the Northern Division made a further suggestion. In 1899 it was arranged alongside other harvesting holidays in "some" Board areas in Perthshire.[93] However, at this time, surviving evidence suggests that the holiday was not further extended in the Lothians.

1902 TO 1913

As a result of legislative changes introduced by the Education (Scotland) Act, 1901 and the tightening up of attitudes towards the employment of children, references to exemption and

the potato holiday are extensive and much can be said about their distribution and use. Although each had its own distribution, both methods were used by some School Boards.

Exemption was only used by certain School Boards: eleven in Midlothian, five in East Lothian and one in West Lothian.[94] However, no reference exists for it by some School Boards, even though children were employed for a few days.[95] Some did not grant exemption, a fact which the SED reports in 1913, when some 320 Boards across Scotland, about a third of all, did not grant any at all.[96] For the potato harvest, none were granted by the Boards of Crichton, Carrington, Fala and Soutra, Temple and Newton in Midlothian and at Borthwick only in one very exceptional circumstance.[97]

The way exemption was used varied across the Lothians. Some Boards did not grant exemption in 1902 and did not use it until following years (Table 8.7).[98] Minute books suggest that not all wanted to give it and had their reasons not to. They reflect Board members' attitudes towards child labour, and their objections towards it. Not all thought it necessary to make arrangements to release children for employment. The Mid Calder Board did not take steps to consult the Education (Scotland) Act, 1901 until 1904: "Mr Hamilton agreed to look up the act regarding the employment of children of school age"; in preceding years farmers were warned about employing children, and if they did so were reported to the compulsory officer.[99] While children continued to be illegally employed, thus suggesting a continued demand for child labour, exemption was not granted until farmers sent a petition to the Board requesting the children's services, a

step also undertaken at Kirknewton and East Calder.[100] Boards did not adopt exemption as they used the potato holiday instead, and only adopted it when they discontinued the holiday as a result of educational problems, as at Cranston.[101] At Borthwick, exemption was only granted as an emergency measure during the prolonged harvest of 1907 so that additional assistance could be given to farmers after the holiday period ended.[102] Varying use was made of exemption throughout the Lothians. Some Boards used it each year as the primary method for releasing children (Table 8.7). However, it was considered unsatisfactory in two Board areas, Stobhill and Newbattle, as a result of educational disruption and dislike of the method, and was discontinued.[103]

TABLE 8.7. USE OF TEMPORARY EXEMPTION FOR THE POTATO HARVEST IN THE LOTHIANS, 1902 TO 1913

School Board	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
East Lothian: Aberlady												Yes
Bolton		Yes										
Dirleton		Yes	Yes	Yes	n.a.	Yes	n.a.	Yes	Yes	Yes	Yes	Yes
Dunbar (Landward)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
North Berwick	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	n.a.	n.a.	n.a.	Yes
Ormiston	n.a.	n.a.	n.a.	n.a.	n.a.	Yes	Yes	Yes		Holiday	Yes	
Spott								Yes				
Whitekirk and Tyninghame	Forms drafted	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	Yes	n.a.	n.a.	Yes	Yes
Midlothian: Borthwick			Holiday	Holiday	Holiday	Yes	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday
Carrington	n.a.	n.a.	Yes	Yes	n.a.	n.a.	n.a.	n.a.	Yes	Yes	Yes	Yes
Cockpen							Yes			Yes		
Cranston											Yes	Yes
Currie	Forms drafted	n.a.	Yes	n.a.	n.a.	n.a.	n.a.	n.a.	Yes	Yes	Yes	Yes
Dalkeith												Yes
Kirknewton and East Calder								Yes	Yes	Yes	Yes	Yes
Lasswade		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mid Calder						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Newbattle	Yes	Yes	Yes	n.a.	n.a.	Yes	Holiday					
Stobhill			Yes	Yes	Yes	Yes	Yes					
West Lothian: Kirkliston					Yes	n.a.	n.a.	Yes	Yes			

Source: School log books.

The period saw a widespread adoption of the potato holiday in the Lothians and throughout Scotland. By 1902 it was "more widely adopted" in rural schools in Perthshire, and was successfully extended to at least one of the county towns, Coupar Angus, in the following year.[104] In Kincardineshire "several" Boards experimented with it in 1903 and so successful were they that by 1906 "many" in the northern part of the county adopted it.[105] In the same year, Mr Scougal, Chief Inspector of Schools for Lanarkshire, notes how it was "being gradually adopted" by rural Boards in his area.[106]

Like the use of exemption in the Lothians, the potato holiday took a number of years to be adopted (Table 8.8). It became an established annual method for releasing children at some schools. At others, most notably those under Currie and Newbattle Boards, it was given for only one year, or for a few, as at Ormiston, and had been adopted largely as an experiment, as it also had at some schools in Perthshire.[107] Others, such as Cousland, however, discontinued it after a number of years.[108]

The potato holiday was largely confined to certain districts across the Lothians. Within these, its distribution was complex. Some Boards with either one school or a number gave holidays throughout the area controlled by it so that all children in an area were released during a holiday period.[109] Others only gave a holiday to one school, with the result that only some children within a parish were released by this method. However, in a number, not all the school log books or minute books survive and it is not known if a holiday was given to all schools throughout a Board area or there is no mention of the holiday in other schools

in the Board area.[110] While some Boards continued to give a holiday in only one school, two neighbouring Boards, Cranston and Crichton, gradually adopted a holiday in all schools across their area.

TABLE 8.8. USE OF THE POTATO HOLIDAY, 1902 TO 1913

School and School Board	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
East Lothian: Gladsmuir: Longniddry	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Macmerry	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Samuelston		Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ormiston: Crossroads												
Ormiston								Yes		Yes		Yes
Spott: Spott			Yes	Yes	Yes							
Midlothian: Borthwick: Borthwick			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Newlandrig Subscription												
Cranston: Cousland				Yes	Yes	Yes	n.a.	Yes	Yes	Yes		
Cranston								Yes	Yes	Yes		
Crichton: Crichton												Yes
Pathhead, St. Marys				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Currie: Balemo							Yes					
Currie							Yes					
Hermiston							Yes					
Fala and Soutra: Fala and Soutra					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Heriot: Heriot	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Lasswade: Lasswade												
Loanhead												
Pentland												
Rosewell												Yes
Roslin												
Loanhead, St. Margaret's												
Rosewell, St. Matthew's												
Newbattle: East Houses												
Newbattle							Yes					
Newton: Edmonstone	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Newton	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ratho: Ratho	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dalmahoy, St. Mary's												
Temple: Temple										Yes	n.a.	Yes
Toxside												
West Lothian: Kirkliston: Kirkliston												
Newbridge				Yes	n.a.							
Newhouses												
Winchburgh												
Livingstone: Blackburn												
Livingstone								Yes	Yes	Yes	Yes	Yes

Source: School log books and School Board Minute Books.

Although the potato holiday was an arranged holiday, there was a further type of holiday used in the Lothians which was arranged at short notice, and was in essence an emergency measure. Particularly during the late nineteenth century headmasters closed schools if poor weather conditions (such as heavy rainstorms and snow), personal circumstances, the absence of children at the potato harvest, or other reasons, caused the attendance to fall to a very low level and it was very difficult to conduct lessons. In such cases schools were immediately closed.[111] As the disruption did not usually last long, and as schools had to make a required number of openings, closures only lasted a short period. During the potato harvest they lasted from an afternoon session, to a day or part of a week.[112]

For the potato harvest, the short closure could still be noted into the twentieth century. Geographically, it was restricted to four schools across the Lothians: Balerno, Crichton and Cranston in Midlothian and Bolton in East Lothian (Table 8.9). The practice varied between the schools, ranging from exceptional use to common practice. All were areas where the potato holiday was also to be found, at some period, and used either as an experimental method to release children or a well tested method.

TABLE 8.9. USE OF SCHOOL CLOSURE TO LET CHILDREN ASSIST AT THE POTATO HARVEST IN EAST LOTHIAN AND MIDLOTHIAN, 1898 TO 1913

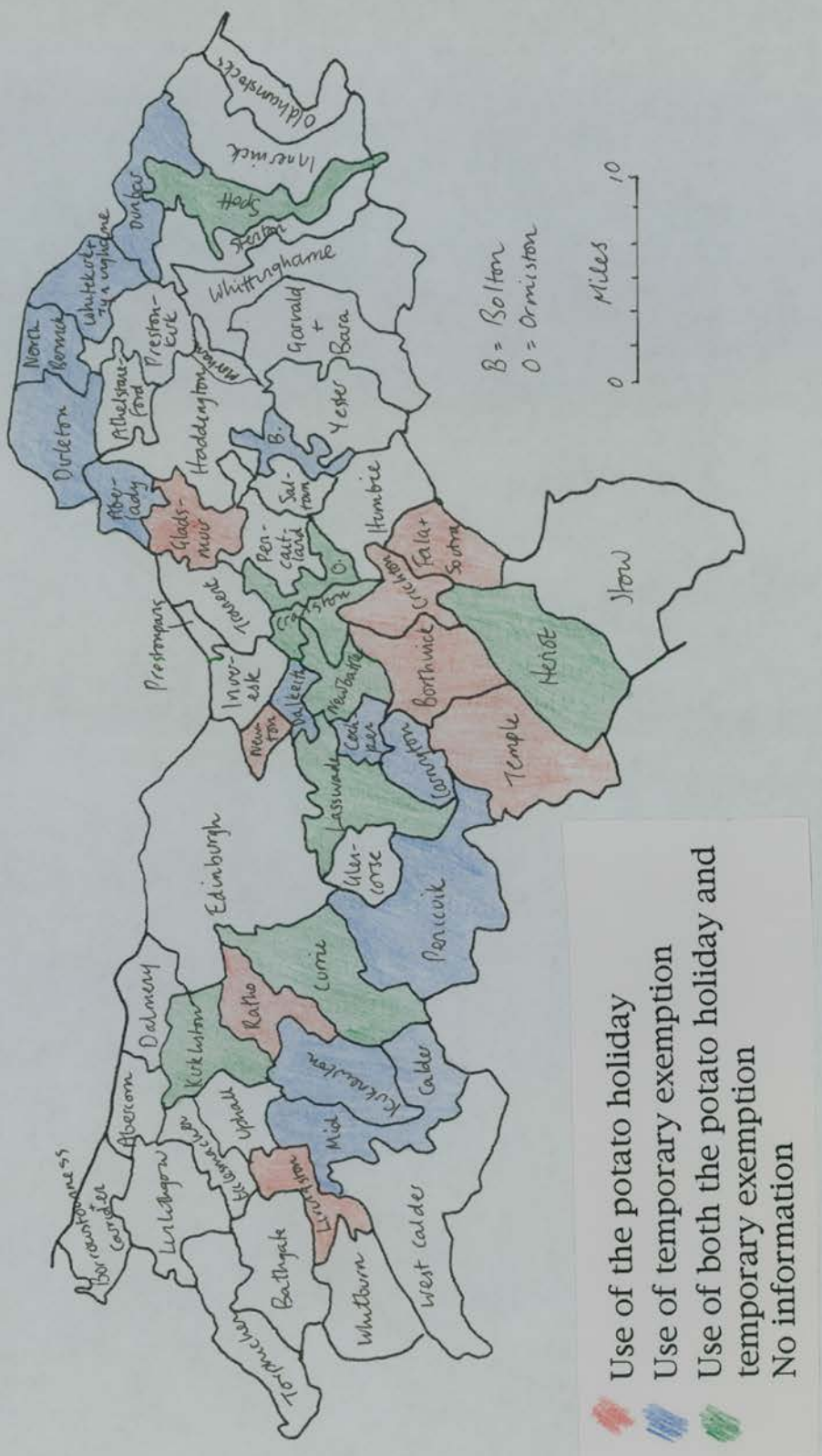
Year/ Schools	East Lothian	Midlothian		
	Bolton	Balerno	Crichton	Cranston
1898	Closure	Closure	Closure	-
1899	Closure	Closure	-	Closure
1900	-	-	-	Closure
1901	-	-	-	-
1902	-	-	-	Closure
1903	-	Closure	-	Closure
1904	-	-	-	Closure
1905	-	-	-	-
1906	-	Closure	-	-
1907	Closure	Closure	-	-
1908	Closure	Potato holiday	Closure	Closure
1909	Closure	-	-	Potato holiday
1910	Closure	-	-	Potato holiday
1911	Closure	-	-	Closure + potato holiday
1912	Closure	-	-	Closure
1913	Closure	-	Potato holiday	Closure

Source: "Balerno Public School Log Book 10.10.1902 to 15.7.1929"; "Crichton Public School Log Book 10.10.1873 to 4.7.1947"; "Cranston Primary School Log Book 28.3.1890 to 29.1.1909"; "Cranston Primary School Log Book 4.2.1909 to 11.7.1941"; "Pathhead St. Mary's R. C. School Log Book 18.10.1899 to 24.12.1920"; SRO, CO7/5/4/1.

GEOGRAPHICAL DISTRIBUTION OF TEMPORARY EXEMPTION AND THE POTATO HOLIDAY

There was a distinct geographical distribution of exemption and the potato holiday (Fig. 8.1). Exemption was given by Boards in a wide range of potato growing areas throughout the Lothians from the large growing districts such as Dunbar, North Berwick, and Currie, to smaller ones like Stobhill. Most were situated in areas where agriculture was not the primary industry. Kirknewton and East Calder, and Mid Calder, for example, were located in the shale mining districts, and Newbattle and Stobhill (Gorebridge) in coal mining areas. Many Boards were also located in more populous districts where there was a larger available supply of labour for harvesting the potato crop. Nevertheless, the children's services were still required, and some farmers at Newbattle, Mid Calder, Kirknewton and East Calder, Dunbar, Dirleton and Bolton asked their School Boards to release children for work.[113] Where exemption was granted, it was not usually given in very large numbers and mainly in schools where a smaller proportion of children were required to be released.[114]

FIG. 8.1. DISTRICTION OF THE POTATO HOLIDAY AND TEMPORARY EXEMPTION IN THE LOTHIANS, 1902 TO 1913



Source: School log books and School Board minute books.

The potato holiday was generally adopted in rural areas where agriculture was the main industry (Fig. 8.1). In many of them there was also a large representation of agricultural interests on the School Board. Where details of Board membership are known, they show that some had a number of farmers, estate managers or others connected with agriculture, as at Ratho, Fala and at Borthwick.[115] Conversely, the absence of agricultural interests on a Board could mitigate against its adoption as at Kirknewton and East Calder and Mid Calder where farmers sent petitions and letters to their Boards to get a holiday granted, or at Newbattle in 1902 when farmers in the district made a suggestion that it should be given.[116] Evidence from other areas, such as Perthshire, also suggests the difficulty of arranging a potato holiday in areas which were not purely rural.[117] The rural areas usually had a small population. As there was therefore a restricted amount of casual labour, all available sources would have to be used to secure the crop. The employment of child labour was heavily depended upon in these areas, a fact supported by school log books which report that a large number of children went out to work in the year preceding the adoption of the holiday.[118] Additionally, as many of the schools were small, a greater proportion of the children was absent, and therefore the complete closure of the school could be justified.[119]

Especially where the holiday was only given for one or a few years, there were exceptions to the above pattern. Not all schools were located in purely rural areas with a relatively small population. Newbattle and Rosewell, for example, were two areas where coal mining was the predominant industry. While Board

minutes and school log books suggest that these schools wished to release children, they also indicate that the holiday was only used as experiments to solve educational problems.[120]

1914 TO 1918

The First World War brought changes to the distribution of exemption and the potato holiday in the Lothians as throughout Scotland. Owing to the extended acreage under the potato crop and the great shortages of labour, dependence increased upon the services of school children. As in England and Wales national appeals were made for their services.[121]

However, unlike the Second World War, where much documentary evidence survives of arrangements made to release children from school attendance, very little information survives.[122] Extant papers do suggest, however, that a School Board was open to make whatever arrangements it thought necessary to release children. Such a policy was adopted as both methods could also be granted at that time in England and Wales.[123] They do not show that one method was preferred over the other. As the War progressed, and the food and labour situation became more critical, the Department clearly indicates that it gave concessions over the granting of exemption. A circular issued on 8 June 1917 stated that the Department would not "take exception to the granting of exemptions under certain suitable conditions in the case of children to be employed on the land." It

suggested children could be employed for a period "not exceeding 12 weeks in the school year."[124]

Although concessions were given for exemption to be given for agricultural activities, there was, however, a decrease in the number of School Boards which gave it across the Lothians. The fall was greatest between 1914 and 1916, when Boards began to adapt their policies for releasing children during the war. However, the pattern ran against the general use of exemption, both temporary and permanent, throughout Scotland, where the number of Boards which did not grant any fell from 320 in the year 1913-14 to 106 in the year 1918-19.[125] Additionally, it was also granted in exceptional circumstances to provide further assistance to a small number of children in several areas, such as Ratho, where it was not traditionally given but only in one instance.[126]

While there was a decline in the use of exemption, there was an increase in the potato holiday. Table 8.10 shows that this was extended into areas located outwith the rural Boards. Additionally, it was also adopted in areas where methods for releasing children were not recorded before the outbreak of the war, as at Haddington.[127] The increased use resulted from Boards wishing to release as great a number of children as possible for supplying labour for harvesting the potato crop.[128] Its adoption, however, was a gradual one in many areas, reflecting the increasing need to provide additional assistance from children as labour supplies became increasingly difficult to obtain, as at Haddington and Dirleton. Such can be supported from evidence from other areas of Scotland.[129]

TABLE 8.10. USE OF THE POTATO HOLIDAY IN THE LOTHIANS, 1914 TO 1918

School Board: School	Granted before War	1914	1915	1916	1917	1918
Aberlady : Aberlady			Yes		Yes	Yes
Bolton: Bolton			Yes	Yes	Yes	Yes
Dirleton: Dirleton			Yes			Yes
Gullane						
Kingston						
Dunbar (Landward): Belhaven						
East Barns			Yes	Yes	Yes	Yes
West Barns						
Gladsmuir: Longniddry						
Macmerry						
Samuelston	Yes	Yes	Yes	Yes	Yes	Yes
Haddington (Burgh): Primary				Yes	Yes	
Roman Catholic						
Ormiston: Crossroads						
Ormiston	Yes	Yes	Yes	Yes	Yes	Yes
Spott: Spott	Yes		Yes	Yes	Yes	Yes
Midlothian: Borthwick: Borthwick	Yes	Yes	Yes	Yes	Yes	Yes
Newlandrig, subscription						
Colinton: Colinton			Yes		Yes	
Juniper Green						
Longstone						Yes
Slateford						Yes
Swanston						Yes
Cranston: Cousland	Yes					
Cranston	Yes					
Crichton: Crichton	Yes	Yes	Yes	Yes	Yes	
Pathhead, St. Mary's	Yes	Yes	Yes	Yes		
Currie: Balerno	Yes					
Currie	Yes					
Hermiston	Yes					
Fala and Soutra: Fala and Soutra	Yes	Yes	Yes	Yes	Yes	Yes
Kirknewton and East Calder: East Calder				Yes		
Kirknewton				Yes		
Oakbank				Yes		
Sunnyside				Yes		
Wilkieston				Yes		
East Calder				Yes		
Lasswade: Lasswade						
Loanhead			Yes			
Pentland			Yes			
Rosewell			Yes	Yes	Yes	Yes
Roslin			Yes			
Loanhead, St. Margaret's			Yes			
Rosewell, St. Matthew's	Yes		Yes			
Newbattle: East Houses						
Newbattle	Yes					
Newton: Edmonstone	Yes	Yes	Yes	Yes	Yes	Yes
Newton	Yes	Yes	Yes	Yes	Yes	Yes
Ratho: Ratho	Yes	Yes	Yes	Yes	Yes	Yes
Dalmahoy, St. Mary's			Yes	Yes	Yes	Yes
Temple: Temple	Yes	Yes			Yes	
Toxside	Yes					
West Lothian: Kirkliston: Kirkliston						
Newbridge	Yes		Yes	Yes	Yes	Yes
Newhouses						
Winchburgh						
Livingstone: Blackburn						
Livingstone	Yes	Yes	Yes			Yes

Source: School log books and School Board minute books.

During the period the short closure was not used to a greater extent. The only additional area where it is recorded was Kingston Combination in the Whittinghame area (Table 8.11). It was no longer given at Crichton and Balerno where it was replaced by other methods for releasing children.[130] Even during the First World War it was also replaced in a further area, Bolton. However, because of the administrative changes which took place after the end of the war, this was the last period when the practice was used to release children.

TABLE 8.11. USE OF THE SHORT HOLIDAY TO LET CHILDREN ASSIST AT THE POTATO HARVEST IN EAST LOTHIAN AND MIDLOTHIAN, 1914 TO 1918

Year/ Schools	East Lothian		Midlothian
	Bolton	Kingside Combination	Cranston
1914	Closure	closure	Closure
1915	Potato holiday	-	Closure
1916	Potato holiday	-	Closure
1917	Potato holiday	Closure	Closure
1918	Potato holiday	Closure	Closure

Source: "Cranston Primary School Log Book 4.2.1909 to 11.7.1941"; SRO, CO7/5/4/1; CO7/5/4/11.

1919 TO 1939

At the start of the period many changes were made to the use of exemption and the potato holiday. As part of the restoration of education to peace time conditions, on 25 June 1919 the SED sent out Circular 5, "Exemptions From School Attendance"

to all Education Authorities. It states that the Department was withdrawing its war-time concession of the granting of exemption for agricultural employment.[131] When Authorities reviewed their exemption policies for the 1919 harvest they showed "a less accommodating spirit" towards releasing children.[132] In Midlothian, the Education Authority approved the ruling "that no children be allowed off for potato lifting," a policy it continued to maintain in following years.[133] Although similar steps were taken in East Lothian by members of the Education Authority, they were unsuccessful.[134]

The dislike of child employment was also the result of the changes in the administrative units now based on the level of a county and a large burgh (Appendix 3). Membership lists of the Education Authorities in the Lothians suggest that members also had greater non-agricultural interests and may not have been aware of the acute need to obtain child labour for harvesting in some districts. In Midlothian, the School Attendance and Medical Inspection Committee, responsible for such matters as arranging school holidays, had no farmers as members, and no other representatives from the agricultural community. However, in East Lothian, there were two farmers who stood up for agricultural interests when they were raised.[135] Additionally, the new educational units were less likely to be influenced by local needs to make arrangements to release children for employment and the personal sway of members of the School Boards.[136]

The educational change influenced the use of the methods for releasing children. After 1919 exemption was only granted in West Lothian and East Lothian. However, because of the scarcity

of documentary evidence in West Lothian, it is not known whether it was used throughout the period.[137] Changes were also made to the geographical distribution of the potato holiday. In West Lothian and East Lothian the holiday was not arranged. However, in Midlothian the question was raised by two SMCs, Cranston, Crichton and Fala, and Newton - areas where the holiday was well established before 1919. Although a holiday appeared to be granted in the latter area in 1919, there was none in the former either in that year or in following ones.[138] Minute Books show that both the School Attendance and Medical Inspection Committee and the Education Authority were strongly opposed to giving a potato holiday. Even after many steps were taken to get one arranged, it was not granted. On a number of occasions they decided not to discuss the request for it or "agreed to recommend that no action be taken in the matter."[139] Neither would they reverse their decision that children should not be made available for the potato harvest; proposals to reverse the move were defeated.[140]

1939 TO 1946

GOVERNMENT POLICY

During the Second World War the increased area under the potato crop together with the greater need for assistance to harvest the crop caused the employment of children to be directed by Scottish government departments (in particular the

DAS and SED) in conjunction with the Education Committees and the Agricultural Executive Committees (AECs), the bodies charged with duties which included increasing cultivation and production of crops and dealing with labour questions.[141]

Although steps were taken to arrange for children to be released from school on the day following the outbreak of war, it was not until 1943, when the Scottish Harvesting Scheme was introduced to organise labour for the fruit, grain and potato harvests, that very intensive steps were taken to arrange labour.[142] By that time labour shortages were evident in many potato growing areas, including the Lothians and counties in east-central Scotland where the most extensive acreages were grown, and additional arrangements had to be made to supply labour from areas where there was a surplus to those where there was a shortage.

To organise the children's services as efficiently as possible, the Scottish government departments suggested to the Education Authorities and the AECs the best methods for releasing children. They issued circulars which suggest the policy they felt should be adopted. Alongside departmental correspondence, they state very clearly the attitude towards the potato holiday and exemption. Departmental papers state that the SED preferred the holiday to exemption.[143] However, early papers were biased towards the use of the holiday since the SED and DAS were not open to mention exemption as at that time it could not be granted in England and Wales. As one minute indicates, it was essential that policies for releasing children in all areas should concur. Any differences were undesirable and "embarrassing."[144] It was not until legislation was

announced in England and Wales in the form of a defence regulation which enabled exemption to be granted, that the Scottish departments were open to mention it.[145] However, the SED was still rather reluctant to do so. A circular which described arrangements to be made for the 1942 harvest states how:

> It is essential that requests for exemption (which may be made to meet an unexpected emergency) should be considered and decided expeditiously.[146]

It suggests that exemption should be carefully given. Even in the following year, exemption was not favoured. Shortages of labour in the main potato growing areas, including Midlothian and East Lothian, made it necessary to make "exceptional arrangements" to organise labour on an even greater scale and release as many children as possible.[147] Co-operation was required between neighbouring AECs and Education Authorities, including those in the largest cities. Where workers were within easy reach of areas where shortages occurred they were to be transported daily. However, not all requirements could be met in this way, and in areas where there was a surplus of labour, as in the cities of Edinburgh and Glasgow, children were billeted or accommodated in those where there was a deficit. To make increased numbers available, Authorities which favoured exemption were instructed to "disturb established customs and entail some inconvenience" and give a potato holiday.[148] In 1944 circulars issued by the SED continued to suggest that the Department was reluctant to suggest

that exemption was the best method to release the large numbers of children which were required. In the following year, 1945, it does not refer to exemption.[149] For the Departments, the holiday had a number of benefits. As all children were released for work, a very great number could be employed. Additionally, as parents also accompanied their children to work in some areas, their labour was also made available, thus increasing the labour supply even further. On educational grounds the children did not leave school during the school term, and thus did not miss out on their education.

Only in 1946 did the Scottish government departments change their attitude towards exemption. Owing to the large scale protests about the employment of children the Secretary of State for Scotland announced that the most objectionable part of the harvesting scheme, the billeting of children in the main potato growing areas, would be dispensed with.[150] Only local children and those transported daily from the cities or neighbouring populous districts would be required to be released and therefore, there was not as great a need to give a potato holiday, as the children could be easily made available by exemption.[151]

USE OF THE POTATO HOLIDAY AND TEMPORARY EXEMPTION IN THE LOTHIANS

Although the Secretary of State for Scotland recommended that the potato holiday should be given to release children it was not used across the Lothians. One source suggests that in that county during the Second World War, it was "not necessary" to

arrange it.[152] While there were numerically fewer children employed in the Lothians, there were also proportionally fewer employed from the schools, which did not act as an incentive to close them.[153] Indeed, in the Prestonpans area it was thought undesirable to close schools as most pupils were too young to engage in employment and only relatively few pupils were employed.[154] However, in East Lothian a "mid term holiday" was given in the county during early October 1943 which split up the long autumn term.[155] In Midlothian a similar one was given. While it lasted a week in 1942 and 1943 it was reduced to two days in 1944.[156] Although three entries in school log books refer to it as a "potato holiday," it could not be regarded as one as it was given during the exemption period.[157] However, the holiday was widespread in other counties.[158]

As in the inter-war years exemption was the favoured method to release children. Additionally, it was also given in Edinburgh where children were employed in Midlothian and western parts of East Lothian (Table 8.12). However, it was discontinued in both Midlothian and West Lothian during 1946 when the two Authorities, and others such as Ayrshire, refused to make arrangements to release children as they wished to protest about the disruption exemption caused to the children's education and at the continued need to employ children after the end of the war.[159]

TABLE 8.12. YEARS IN WHICH TEMPORARY EXEMPTION WAS GRANTED FOR THE POTATO HARVEST IN EDUCATION AUTHORITY AREAS OF THE LOTHIANS, 1939 TO 1946

Year	East Lothian	Midlothian	West Lothian	Edinburgh
1939	Granted	Granted	n.a.	n.a.
1940	Granted	Granted	Granted	n.a.
1941	Granted	Granted	Granted	n.a.
1942	Granted	Granted	Granted	n.a.
1943	Granted	Granted	Granted	Granted
1944	Granted	Granted	Granted	Granted
1945	Granted	Granted	Granted	Granted
1946	Granted	Not Granted	Not Granted	Granted

Source: Midlothian Education Committee, Minutes of Meetings, 14.6.1938 to 21.10.1947; SRO, AF59/23/7; AF59/23/8; CO7/5/1/14; CO7/5/1/15; CO7/5/1/16; CO7/5/1/17; CO7/5/1/18; CO7/5/1/19.
n.a.: not available.

The use of exemption also differed from the inter-war period. Numbers were no longer restricted as the conditions of exemption were relaxed to release as many children as possible to secure the extensive acreages of potatoes. Additionally, as the War progressed, further assistance was provided by staggering the dates of exemption to allow for assistance over a longer period.

There were various reasons why exemption continued to be favoured as a method to release children. As no children were billeted or accommodated in the area schools were also needed as billeting and feeding centres. Indeed, as the need to billet children in some of the larger potato growing areas increased during the War the use of exemption as a primary method for releasing children decreased.[160]

Exemption was also preferred as it allowed the children's labour to be easily organised. Children could be easily contacted from the schools which acted as labour centres and their services diverted to employers who required their assistance. Their labour could be closely controlled, as could any illegal employment. When their labour was organised from school, the children were sent to one farm and moved on as required. Such could not be said of the potato holiday, where comments were made that the children lost touch with the schools and it was difficult to contact them at home.[161]

1947 TO 1962

Exemption was the only method used to release children in the Lothians. However, great changes were made in the way it could be given in the area and throughout Scotland. With the introduction of the Education (Scotland) Act, 1946 exemption could only be given to a child over the age of fourteen years where it was necessary on account of circumstances at home to prevent exceptional hardship such as poverty; no longer could it be granted to let a child engage in employment of any kind, including potato lifting.

As a result, amending legislation had to be introduced. As Local Education Authorities in England could still grant exemption under the Defence Regulation of 1942, the Secretary of State for Scotland could introduce a modified version of the regulation into Scotland. On 31 July 1947 the Education (Exemptions) (Scotland)

Act, 1947 came into operation. Although it was a temporary Measure to deal "with the problem with which we are faced at the moment," it had to be extended annually under the Expiring Laws Continuance Bill, until it expired after the 1962 harvest.[162]

EXEMPTION IN THE LOTHIANS

With the introduction of the Act important changes were made to the way exemption was granted. No longer could Education Committees decide whether they would grant it; that power was held by the Secretary of State for Scotland whose functionaries oversaw the arrangements for releasing children. Where no arrangements were made by a Committee and it appeared that shortages of labour existed he made it a legal responsibility for an Authority to grant exemption. As a potato holiday was not given in the Lothians the Secretary of State notified that exemption should be given. Its use was governed by the same policy given throughout Scotland. Table 8.13 shows that it was used in all areas until 1958 when it was discontinued in the Edinburgh area.[163] Its discontinuance in that area reflected the Government's policy for a number of urban areas across Scotland. During 1958 the practice of transporting children daily from urban areas, which had started in 1942, was discontinued with a view to reducing the number of Authorities granting exemption; Dundee was the only area where its use continued.[164] The discontinuance in East Lothian after the 1960 harvest embodied the government policy of the late 1950s that the number of

county Authority areas should be reduced with a view to terminating the Act (Table 8.13). East Lothian, however, was not the first of these Authorities to have exemption withdrawn (Table 8.14). By 1962, the last year exemption was notified, it was found in only eleven counties, which included Midlothian and West Lothian, and one city, Dundee (Fig. 8.2).

TABLE 8.13. YEARS IN WHICH EXEMPTION WAS GRANTED IN THE LOTHIANS UNDER THE EDUCATION (EXEMPTIONS) (SCOTLAND) ACT, 1947

Year	East Lothian	Midlothian	West Lothian	Edinburgh
1947	Granted	Granted	Granted	Granted
1948	Granted	Granted	Granted	Granted
1949	Granted	Granted	Granted	Granted
1950	Granted	Granted	Granted	Granted
1951	Granted	Granted	Granted	Granted
1952	Granted	Granted	Granted	Granted
1953	Granted	Granted	Granted	Granted
1954	Granted	Granted	Granted	Granted
1955	Granted	Granted	Granted	Granted
1956	Granted	Granted	Granted	Granted
1957	Granted	Granted	Granted	Granted
1958	Granted	Granted	Granted	None
1959	Granted	Granted	Granted	None
1960	Granted	Granted	Granted	None
1961	None	Granted	Granted	None
1962	None	Granted	Granted	None

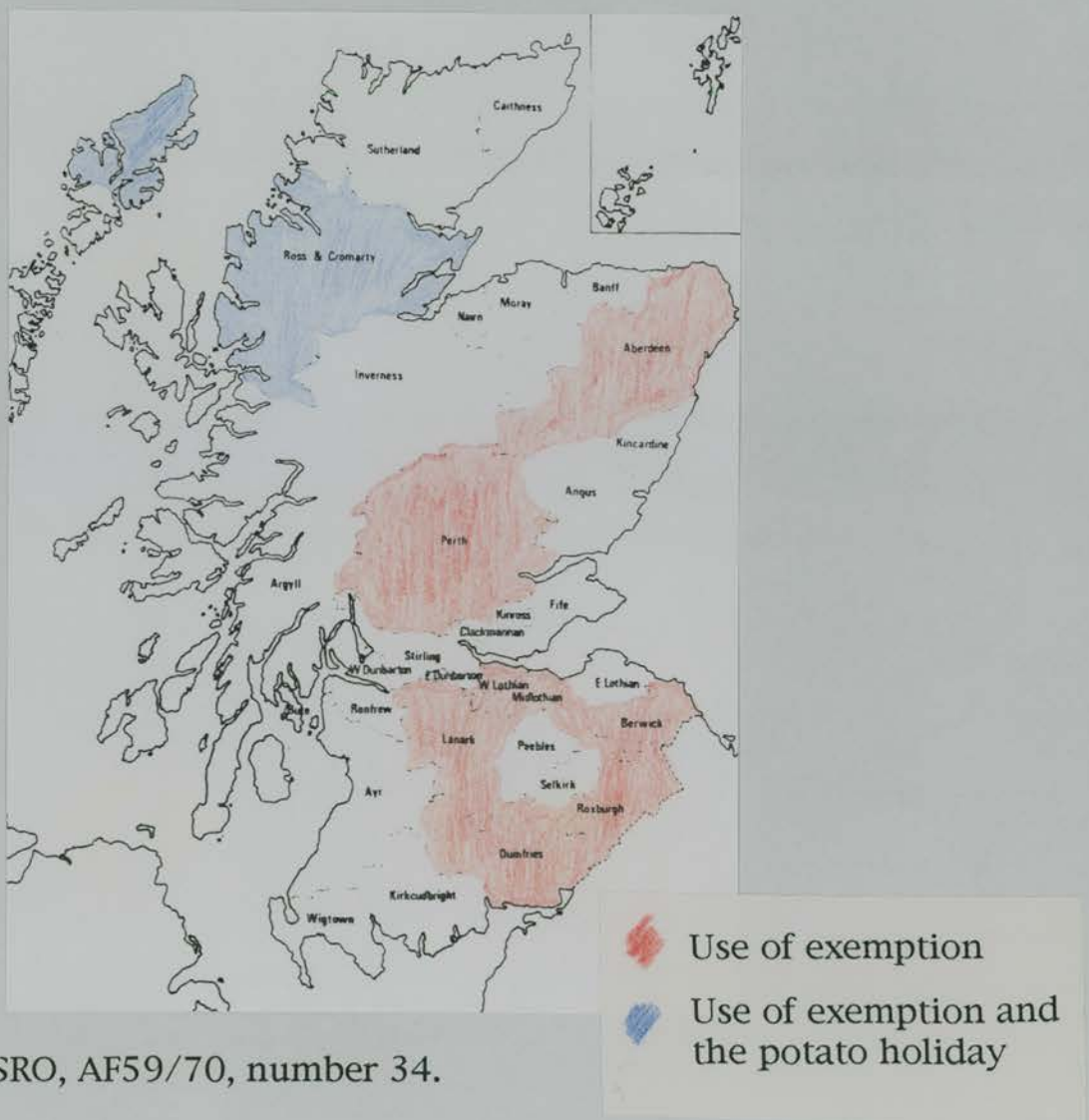
Source: SRO, ED54/88.

TABLE 8.14. YEARS EXEMPTION WAS WITHDRAWN FROM COUNTIES THROUGHOUT SCOTLAND, 1959 TO 1961

1959	1960	1961
Stirlingshire	Inverness-shire	East Lothian
Nairn		
Peeblesshire		
Renfrewshire		
Selkirkshire		

Source: SRO, ED54/88, "Note for 1959 Expiring Laws Continuance Bill"; AF59/79, number 37; AF59/68, number 35.

FIG. 8.2. DISTRIBUTION OF EXEMPTION IN SCOTLAND DURING 1962



Source: SRO, AF59/70, number 34.

As exemption could no longer be granted, the potato holiday was the only method used to release children from school. As in earlier years, the holiday continued to be given in some of the largest potato growing counties such as Angus and was reintroduced into Perthshire.[165] However, during the period, Education Authorities widely adopted a practice of arranging a holiday during October. While its function was to split up the long autumn term, which extended from August to Christmas, it was also used as a potato holiday in some agricultural areas. In parts of the Lothians it was called the "tattie week," "tattie holiday" or the "October week." Although children were employed at harvesting work in the Lothians as in other counties, it gradually lost its function like the harvest holiday, as a result of the mechanisation of the harvesting process.[166]

CONCLUSION

The methods used to release children had a profound effect on the supply of child labour in the Lothians. While they were instrumental in making labour available for a certain period, they also affected the labour supply in various ways. For example, conditions were attached to the granting of exemption which had a tendency to restrict the numbers of children who could apply to leave school.

During the late nineteenth and twentieth centuries variation in the use of exemption and the potato holiday was complex across the Lothians as a result of a number of factors: the way Boards and other educational bodies interpreted the Education (Scotland) Acts to make children available for employment; personal opinion of members of the educational bodies; the need to enforce school attendance and ensure that children were legally employed. As a result, various trends were found throughout the Lothians during the periods under discussion: (1) 1872 to 1901. Although some use was made of exemption, the potato holiday was developed and was recorded in only one School Board area. (2) 1902 to 1913. The rise of the exemption and adoption of the holiday gave rise to complex patterns in the methods for releasing children which varied from school to school and from Board to Board. (3) 1914 to 1918. Increased use was made of the potato holiday owing to the need to employ greater numbers of children at a time of national crisis. A few School Boards did not give either exemption or holiday and no children were made available. (4) 1919 to 1938. Exemption was the only method used to release children in East Lothian and West Lothian. Although a holiday was given in one area of Midlothian in 1919, no children were released in following years. (5) 1939 to 1946. Exemption was primarily used throughout the Lothians. (6) 1947 to 1962. Exemption was the only method used to release children throughout the Lothians. (7) 1963 to mid 1990s. As exemption could no longer be granted, children were employed during the "October week" and at weekends.

The following chapter looks at the number of children employed during the period 1870 to 1995, as influenced by the methods used to release children from school and other factors.

CHAPTER 9: NUMBER OF CHILDREN EMPLOYED

SOURCES AND SOURCE CRITICISM

As with other types of casual workers employed at the potato harvest it is very difficult to tell exactly how many children were employed. While government departments and other administrative bodies collected and noted much information about the numbers, they usually only record details about employment during school hours, when children obtained permission to leave school. Thus, few note details of employment during the potato holiday, as this was a school holiday. No statistics were collected of the number employed at weekends as employment was not controlled by school authorities. Thus, the most detailed information relates to the number of children employed during school hours. The coverage of statistics for much of the late nineteenth and early twentieth centuries is therefore restricted to only certain localities and also particular years.

There are also problems with some of the documentation itself. Although sources mention that children were employed, they do not usually state the number. School log books, which provide a very valuable and detailed record of the movement of children to and from the potato fields during the potato harvest, usually only note the number of those absent from school in descriptive terms: "a few," "a small number," "some," "a number," "many," "a good number," or "a considerable number." Careful use must be made of these terms as they vary in meaning according to the size of the senior departments of the schools from which

the children were released. While "a great many" children were employed at Rosewell, a larger number would have been employed than if "a great many" were employed at Carrington; the average number of pupils over ten years at these schools in 1900 was 92 and 18 respectively.[1]

NUMBER OF CHILDREN EMPLOYED

Because of the complex nature of the employment of children at the potato harvest, a study of the number of children employed can best be seen during eight periods: 1870 to 1901; 1902 to 1913; 1914 to 1918; 1919 to 1938; 1939 to 1945; 1946 to 1949; 1950 to 1962; 1963 to the 1990s.

1870 TO 1901

From 1870 to 1901 changes in the acreage under potatoes, caused by economic depression, had the greatest effect on the number of children released for harvesting the main crop. In general there was a widespread decline in the number employed. Table 9.1 shows that the greatest numbers were employed in all areas in the 1870s when the acreage was still at its greatest, and when a large supply of labour was required as spinners, which were thought to be more efficient, were not used to any great extent.

TABLE 9.1. NUMBER OF CHILDREN EMPLOYED IN THE LOTHIANS, 1870 TO 1879

School Board and School	No. Of Pupils	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879
East Lothian: Bolton: Bolton	68								A few		Nearly half the school
Dirleton: Kingston	120										
Dunbar (Landward): East Barns	106										A number
North Berwick: Halfland Barns	68										
Spott: Spott	120								Several		Many
Midlothian: Carrington: Carrington	130										A number
Cockpen: Cockpen	120				Some	Several					
Crichton: Crichton	210			A few	A few	A good many	A great many	A few			
Currie: Balerno	225										
Currie	195										
Glencorse: Glencorse	295										
Kirknewton and East Calder: East Calder	272										
Wilkieston	130		Great numbers					A number			
Mid Calder: Mid Calder	116					A number	Many	Many	A considerable number	10 boys and 3 girls	
Musselburgh Burgh: Newbiggin	424										
Newbattle: East Houses	62										
Penicuik: Howgate	120				A good number						
Penicuik Public	746										
Ratho: Dalmahoy St. Mary's	119		Many	Many				Several	Several	Several	
Ratho	303				Many	A considerable number		A considerable number			
Stow: Fountainhall	120								A considerable number		
Stow	226						Some		A number	A number	
West Calder: Gavieside	280										
West Lothian: Borrowstowness and Carriden	293										
Livingstone: Livingstone	115										
Whitburn: Crofthead	299										

Source: School log books.

The extent of child labour appeared to have been affected by the general agricultural depression from 1879 onwards. The greatest decline did not take place until the late 1880s and the 1890s (Table 9.2, Table 9.3). By the early 1890s few references were made to children employed from schools all within relatively small potato growing areas, while at others, none were employed. However, in some schools such as Cranston, Balerno, Rosewell and Carrington the end of the depression in the late 1890s was marked by an increase in the numbers released; the potato acreage also increased at that time (Appendix 1).

The decline in the number of children released from school may have been caused by other factors, but without further conclusive proof it is difficult to tell how important these were. It has been noted that during the period the attitude towards the employment of children was changing, and children were discouraged from leaving school or farmers were discouraged from employing them. Additionally, attempts were made to improve school attendance not only during particular seasons but also throughout the year. This concern, commented upon by many Boards and School Inspectors, may have also contributed.[2]

TABLE 9.2. NUMBER OF CHILDREN EMPLOYED IN THE LOTHIANS, 1880 TO 1889

School Board and School	No. of Pupils	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889
East Lothian: Bolton: Bolton	68	Many	Several boys						Several	Some	
Dirleton: Kingston	120										
Dunbar (Landward): East Barns	106	A number	A number	A number	All Sixth and half of Fifth						Majority of Sixth
Haddington: St. Mary's	165				Many				Considerable		A number
North Berwick: Halfland Barns	68							A number / 14			
Spott: Spott	120	Several	Many			Several	Several	A good few	Several		
Midlothian: Carrington: Carrington	130		A great many		A considerable number		Several			A number	A number
Cockpen: Cockpen	120										A few
Crichton: Crichton	210		A great many	A good many	A great many			A good many		Many	Many
Currie: Balerno	255	A large number			A large number			A number	70% Fifth Standard	Most of Fifth Standard	
Currie	195		Many							A great many	
Glencorse: Glencorse	295			Some							
Kirknewton and East Calder: East Calder	272	Many	A number	Many		Many			A number		
Wilkieston	130		Many	A number	Many	A number	Many	A number	Many		A number
Mid Calder: Mid Calder	116		Many		A few					A number	A number
Musselburgh Burgh: Newbiggin	424										A number
Newbattle: East Houses	62					Great many	Many				
Newton: Edmonstone	66								Holiday	Holiday	Holiday
Newton	240								Holiday	Holiday	Holiday
Penicuik: Howgate	120					A few					A number
Penicuik Public	746	Many									
Ratho: Dalmahoy St. Mary's	119	Many								Many	Many
Ratho	303		Many						A good many	A good many	
Stow: Fountainhall	120		Several						Some		
Stow	226			A number	A number	A few	A number	A number			
West Calder: Gavieside	280	Some of the girls			A few	Some	A number				
West Lothian: Borrowstowness and Carriden	293		Some			A good many	Few	A great many			Several
Livingstone: Livingstone	115	Several			Several						
Whitburn: Crofthead	299	A number							Some		

Source: School log books and School Board Minute Books.

TABLE 9.3. NUMBER OF CHILDREN EMPLOYED IN THE LOTHIANS, 1890 TO 1901

School Board and School	No. of Pupils	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901
East Lothian: Bolton: Bolton	68				One boy								3
Dirleton: Kingston	120		A number	A number	Most of Fourth	Some	Some		Many		Many	Many	Over 50%
Dunbar (Landward): East Barns	106		Many boys		11			Some	Some	A good many	A good many	All Sixth Standard	
Haddington: St Mary's	165	A number	A number										
North Berwick: Halfland Barns	68			Ssome	One or two	Some			Some	A good many	One or two		
Spott: Spott	120	One or two			Several			Several		Several			One or two
Midlothian: Carrington: Carrington	130					A number				A good many			A few
Cockpen: Cockpen	120												
Crichton: Crichton	210	Many	Many	Many	Some		Many			About 52		A good many	Some
Pathhead	59					Some				A few girls			
Cranston: Cranston	138		Many	Six or seven	Several	Several		Several	Many		So many	More than half	22% absent
Currie: Balerno	255							A number	20	Upwards of 100	Nearly all	About 60 %	
Currie	195		A great many	Many	Considerable	A great number			Considerable			A considerable number	Number
Hermiston	51		A good many	A number						Numbers			Several
Glencorse: Glencorse	295									Several			
Kirkhewton and East Calder: East Calder	272		Many	A number				A few	Many			Many	Several
Wilkieston	130	Number	A number	A number		A number	Some	A number	A number	Many		A number	
Lasswade: Rosewell	292									A number	A great many	A number	A great many
Mid Calder: Mid Calder	116	A good number	A considerable number	A number	A few	A few	A few					Some	A few
Pumpherston	313			Some								Some	A large number
Musselburgh Burgh: Newbiggin	424				Several								
Newbattle: East Houses	62												
Newton: Edmonstone	66	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday
Newton	240	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday	Holiday
Penicuik: Howgate	120												
Penicuik Public	746												
Ratho: Dalmahoy St. Mary's	119				Many	Many						Some	
Ratho	303							A few			Many	Many	
Stow: Fountainhall	120						Some						
Stow	226		Several			Some		Several					
Temple: Toxside	47											Some	
West Calder: Cobbinshaw	150								A few				
Gaveside	280									Some	A few		
West Lothian: Borrowstownness and Carriden	293		Some	Several			Many						
Kirkliston: Newbridge	209			A few					A few				
Livingstone: Livingstone	115		Several	A number			A number	A number	A number		A good many	A good many	
Whitburn: Crofthead	299												

Source: School log books and School Board Minute Books.

Table 9.4 shows that it is very difficult to see an overall trend in the extent of the employment of children for the potato harvest in the Lothians during the period 1902 to 1913 as trends in employment varied from school to school and thus parish to parish. While large numbers continued to be released throughout the period at Currie, Balerno, Crichton, East Calder and Cousland, very few or none came to be released at others. Such a pattern was caused by attitudes of individual School Boards which were manifested in their policies for releasing children.

Where exemption was granted there was, in general, a decline in the numbers released. Certainly the number of both temporary and permanent exemptions granted throughout Scotland under the Education (Scotland) Act, 1901 had a tendency to decrease until 1909.[3] However with legislative changes brought by the Education (Scotland) Act, 1908 there was a continuing increase, the cause of which could not be fully explained by the Committee of Council on Education in Scotland.[4] However, in the Lothians after that date, there was a general decline in the number of exemptions granted for potato harvesting, as Boards made it more difficult for children to obtain exemption.[5] Indeed, the policy of some Boards had the effect of prohibiting the release of children for harvesting the potato crop altogether. At Stobhill after the 1909 harvest, no exemption was given and therefore no children were released and employed.[6] At Newbattle, labour also became difficult to obtain after the Board abandoned the potato holiday with the result that one farmer, Walter Douglas of

Mayshiel, complained that the lack of labour caused part of his crop to be frosted.[7] In areas where a potato holiday was granted it is not known how many children were employed. In some cases, the number must have been considerable, as one of the reasons the holiday was adopted was to allow large numbers to be released from school.[8]

TABLE 9.4. NUMBER OF CHILDREN EMPLOYED IN THE LOTHIANS, 1902 TO 1913

School Board and School	No. of Pupils	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Bolton: Bolton	68		Some			2 girls	(SC)	(SC)	(SC)	(SC)	(SC)	(SC)	(SC)
East Lothian: Dirleton: Dirleton	142												
Kingston	120	Many	70%	Many		Many	Several	Many	All in Senior 2	Many			
Dunbar (Landward): East Barns	106	6	6	7		8	7	7	4	One boy	Several	2	4
West Barns	239					8	11	7	4			2	
Gladsmuir: Samuelston	61	(H)	(H)			Some	(H)	(H)	(H)	(H)	(H)	(H)	(H)
North Berwick: Hatland Barns	68	10	3		One or two	6	Few		2				7
Ormiston: Ormiston	227							20	(H)		(H)		(H)
Spott: Spott	68	Several					Some	Several					
Whitekirk and Tyninghame: Tyninghame	122												
Whitekirk	127											2	10
Mid Lothian: Borthwick: Borthwick	94		(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)
Carrington: Carrington	130	Good many	Some	Good many		Few boys	Good many	Number	Few	Number			Most
Cockpen: Cockpen	120							2		1	2		
Cranston: Cousland	107					(H)	(H)		(H)	(H)	(H)		Many
Cranston	138							(H)	(H)	(H)		(H)	(H)
Crichton: Crichton	210		Good many	Few	About half			Large numbers		Few	Many	Many	(H)
Pathhead	59				(H)	(H)	About 2/3	(H)	(H)	(H)	(H)	Great number	(H)
Currie: Balerno	255		Large number	9	(H)	40	50%	(H)	Considerable number	Great number	60%		30
Currie	195		Number	Number	Several		34%	(H)		Several	Number	Number	Number
Hermiston	51												
Fala and Soutra: Fala and Soutra	80					(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)
Kirknewton and East Calder: East Calder	272		Many		Several		Several					Good many	Many
Kirknewton	135	Some											
Wilkieston	130	Some											
Lasswade: Loanhead, St. Margaret's	316			9									
Rosewell	292	Great many	Several	10							Number	Number	
Rosewell, St. Matthew's	110			6									(H)
Roslin	394			8									
Mid Calder: Bellsquarry	116			Large number	Some								3
Mid Calder	116	Few		Good many	Good number	Few	18	Considerable number	16	Number	10	11	
Pumpherston	313			Large number		Number	Some	13	Dozen				
Newbattle: Newbattle	679							(H)					
Newton: Edmonstone	66	(H)	(H)	(H)		(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)
Newton	240	(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)
Penicuik: Howgate	120				Several	Several				Several			
Ninemileburn	103				Some				Number			2	
Ratho: Dalmahoy St. Mary's	119	Several	Some	Several	Many		Several	Many	Several		Several	2	
Ratho	303	(H)	(H)	(H)		(H)	(H)	(H)	(H)	(H)	(H)	(H)	(H)
Stobhill: Stobhill	712			13	29	9	7	7	0	0	0	0	0
Stow:Fountainhall	120						Some						
Stow	226		Number										
Temple: Temple	124			15	Several				Several		(H)		(H)
Toxside	47		1		3	2				1	3	1	2
West Lothian: Livingstone: Livingstone	115		Many	About 20	Over 20				(H)	(H)	(H)	(H)	(H)

Source: School log books and School Board Minute Books.

(H) = potato holiday

The period of the First World War was marked by an overall general increase in the number of children employed at the potato harvest owing to the acute shortages of labour and increased production of potatoes and other foodstuffs during the time of crisis. As in earlier periods, it is not known how many were employed, either in specific Board areas or across a county. Unlike England and Wales, where detailed statistics of the number of exemptions granted were collected until October 1916 none were collected in Scotland.[9]

Children made a particularly noted contribution towards the labour supply as the War increased. As Table 9.5 shows, large numbers were employed in some School Board areas such as Cousland, Balerno, Currie and Pumpherston. Across the Lothians the Board of Agriculture for Scotland (BAS) also specifically commented upon the large part played by them in 1915 and 1918.[10] However, in some areas, such as Stobhill and Newbattle, educational policy had the effect of prohibiting or restricting the number of children employed, a policy which would have made the labour situation more difficult.[11]

TABLE 9.5. NUMBER OF CHILDREN EMPLOYED IN THE LOTHIANS, 1914 TO 1918

School Board and School	No. of Pupils	1914	1915	1916	1917	1918
East Lothian: Bolton: Bolton	68	(H)	(H)	(H)		
Dunbar (Landward): East Barns	106	9	(H)	(H)	(H)	(H)
Gladsmuir: Samuelston	61	(H)	(H)	(H)	(H)	(H)
North Berwick: Halfland Barns	68	2	4	1	1	4
Ormiston: Ormiston	227	(H)	(H)	(H)	(H)	(H)
Spott: Spott	120	(H)		(H)	(H)	
Whitekirk and Tyninghame: Tyninghame	122	10				12
Midlothian: Borthwick: Borthwick	94	(H)	(H)	(H)	(H)	(H)
Carrington: Carrington	130	All children	All older boys	All older girls		
Cockpen: Cockpen	120					About 25
Cranston: Cousland	107	11 boys, 9 girls	Many		Some	25
Cranston	138					
Crichton: Crichton	210	(H)	(H)	(H)	(H)	
Pathhead	59	(H)	(H)	(H)		
Currie: Balerno	225	A number	9	c. 50%	23 pupils	
Currie	195	Several	Over 50%	60%	A number	A number
Hermiston	51		Some		12	Some
Fala and Soutra: Fala and Soutra	80	(H)	(H)	(H)	(H)	(H)
Glencorse: Glencorse	292					
Kirknewton and East Calder: East Calder	272		20	(H)	16	23
Wilkieston	130			(H)		
Lasswade: Lasswade	516				A number	
Loanhead	651			Many		
Rosewell	292		(H)	(H)	(H)	(H)
Mid Calder: Bellsquarry	116			6		
Mid Calder	285	11	A few			
Pumpherston	313	13	21	12	A large number	
Newton: Edmonstone	66	(H)	(H)	(H)	(H)	(H)
Newton	240	(H)	(H)	(H)	(H)	(H)
Penicuik: Ninemileburn	103	2	1	2	One or two	A few
Newbattle: Newbattle	679	12				
Ratho: Dalmahoy St. Mary's	119	Some	(H)	(H)	(H)	(H)
Ratho	303	(H)	(H)	(H)	(H)	(H)
Stobhill: Stobhill	712					59
Temple: Temple	124	(H)			(H)	
Toxside	47	3 boys	2 boys		2 boys	4 boys
West Calder: Gavieside	280	A few			Some	Most
West Calder	292					Many
West Lothian: Livingstone: Livingstone	115	(H)	(H)	(H)		(H)
Kirkliston: Newbridge	209	8	(H)	(H)	(H)	(H)

Source: School log books and School Board Minute books.

(H) = potato holiday

1919 TO 1938

While the First World War saw the increased employment of children in most areas of the Lothians, the years following it

saw a great decline. Central to this was the Education Authorities' attitude towards the employment of children, which has been detailed elsewhere. In Midlothian from 1919 onwards no children were released for work.[12] Nevertheless, school log books report that a few were employed, all illegally, in a small number of localities, until about 1924.[13] In East Lothian where exemption was granted, there was a slow and gradual decline in the numbers employed, only interrupted by the years of the general depression and other periods of economic crisis. For example, in the Dunbar area, one of the largest potato growing areas in the county, where at least 30% of the children eligible for exemption went out in the early 1920s, the figure had dropped to 20% by 1937.[14] A decline was also found in the Haddington area where in 1938 only eight exemptions were granted, of which three were given to children of farm servants at West Fortune.[15] No children were released in the Prestonpans area.[16]

The years of the Depression and other periods of economic difficulty interrupted the decline in the number of exemptions granted, and in some areas there was a rise in the number granted for potato harvesting. At Tranent the effects of the Miners' Strike of 1926 and the economic depression in 1928, 1930 and 1936 were reflected in the number of exemptions granted. As a result of the large number of exemptions for potato harvesting, the attendance fell below 90%, the only time it did so during the time of the potato harvest during the late 1920s and the 1930s.[17] A similar rise was also found in the Dunbar area in 1933, a year when there was a marked increase in the number of temporary exemptions granted throughout Scotland (Table 9.6).[18]

TABLE 9.6. NUMBER OF EXEMPTIONS GRANTED FOR THE POTATO HARVEST IN THE DUNBAR AREA, 1922 TO 1937

Year	Dunbar Burgh	Dunbar Parish	Innerwick	Oldham-stocks	Spott Parish	Total
1922						c. 57
1923						55
1924						66
1925						46
1926						62
1927	37	17	5	1	3	63
1928	38	1	2	2	1	44
1929	32	3	2	3	1	41
1930						34
1931	24	7		3		34
1932						32
1933						51
1934						n.a.
1935						30
1936						22
1937						27

Source: SRO, CO7/5/2/25; CO7/5/5/16.
n.a.: not available.

Periods of depression like those of the late 1920s and early 1930s had a great effect on school attendance and on the granting of exemption. In 1919 F. R. Jamieson, Chief School Inspector for the Southern Division of Scotland comments that:

> Periods of unemployment and periods of exceptional industrial activity are alike in their bad effect upon attendance. In the first case the small sums which children under 14 can earn are needed in homes from which the usual income has been cut off; in the second case children are tempted away from school by the offer of very high wages.[19]

Jamieson's argument can be further extended by the experience of granting exemption for potato harvesting in East Lothian. There was a rise in the number of applications for exemption for children to look after the house or the baby so that their parents could go out to work to supplement their household income. Although applications like these were usually refused on the grounds that the circumstances did not warrant the loss of schooling, some parents still kept their children at home so that they could go out to work.[20]

1939 TO 1945

Although the inter-war years witnessed a large decrease in the number of children employed, the years of the Second World War and those immediately following it saw their employment at its highest level during the twentieth century. A continually increasing potato acreage combined with labour shortages meant that if sufficient labour was to be available for harvesting the potato crop then greater use had to be made of children. As the children's services were organised by Scottish government departments in conjunction with Education Authorities the number of children employed was controlled by Departmental policy on the recruitment of labour.[21]

As the war progressed there was a great increase in the employment of children. By early 1942 acute labour shortages were reported in nine areas of Scotland which included East Lothian, Fife and Perthshire, which were amongst the largest

potato growing counties.[22] As insufficient numbers of local children were available for harvesting the potato crop additional children had to be brought from other areas. This was achieved by transporting them on a daily basis from adjoining towns and more populous areas to the growing areas where there was shortages of labour (Table 9.7). Although the practice was further extended during the following year, sufficient labour could still not be provided for all areas, especially those which had been large employers before the outbreak of the war.[23] Further labour was made available by accommodating or billeting children in some of the growing areas. For the first time children from the cities, including Glasgow and Edinburgh, were employed on a large scale.[24] Both practices were further extended in 1944. By 1945, further use was made of billeted children from the cities, to replace some 10,500 locally employed children reported to have been illegally employed.[25]

TABLE 9.7. NUMBER OF CHILDREN EMPLOYED AT THE POTATO HARVEST IN THE LOTHIANS, 1941 TO 1945

Date	Local	Transport	Billeted	Total
1941				22,000 (estimate)
1942				35,000 (estimate)
1943	43,950	7,754	3,856	55,560
1944	45,634	10,497	5,709	61,840
1945	28,959	6,449	6,117	41,525 (average over 3 weeks)

Source: SRO, AF59/23/2, number 1A, number 41.

The number of children employed in Midlothian and East Lothian reflected the national trend in child employment; no evidence survives for West Lothian. Although statistics are fragmentary for the first years of the war, they show an increase in numbers between 1939 and 1941, then a sharp rise between 1941 and 1942 (Table 9.8, Table 9.9). In 1943, when the Department of Agriculture for Scotland (DAS) and Education Authorities collected detailed statistics, a substantial increase is recorded in the numbers employed, as a result of the intensive campaign to recruit labour by the DAS. As throughout Scotland, the greatest numbers were employed in the Lothians during the 1943 and 1944 harvests. However, in 1944 there was a small decline, also characteristic of the trend in a further fourteen counties which included a number of minor potato growing districts. Only in ten areas did the number increase, though not significantly. Again in 1945 the number fell.

TABLE 9.8. NUMBER OF CHILDREN EMPLOYED AT THE POTATO HARVEST IN EAST LOTHIAN, 1943 TO 1945

Year	Transported Children	Local Children	Total
1943	532	900	1432
1944	625	543	1168
1945			800

Source: SRO, AF59/23/13, number 2.

TABLE 9.9. NUMBER OF CHILDREN EMPLOYED AT THE POTATO HARVEST IN MIDLOTHIAN, 1943 TO 1945

Year	Transported Children	Local Children	Total
1943	750	1350	2100
1944	1450	935	2350
1945	880	1300	2100

Source: SRO, AF59/23/13, number 2.

1946 TO 1949

As a result of the critical food situation in the years immediately following the war and the need to maintain the high acreage of potatoes in Scotland, a large labour force continued to be required for harvesting the potato crop.[26] However, changes in the labour force made the labour situation a critical one. The gradual repatriation of prisoners of war, and their complete repatriation in 1949 meant that there was a loss of between some 20,000 and 30,000 workers who had assisted in the largest potato growing areas, including the Lothians.[27] As no alternative, and suitable, labour could be found to replace them, increased use had to be made of children on a level as great as during the war.

However, during 1946 the employment of children throughout Scotland was lower than in 1945, as a result of the temporary abandonment of billeting and the refusal of some Education Authorities to release children for work (Table 9.10). Nevertheless, in 1947 there was an increase which continued again in 1948, when the largest number of children during the post-war years was employed, some 63,267. Although the

following year, 1949, saw a very slight decline, the greatest number of exemptions was given, some 44,920.

TABLE 9.10. NUMBER OF CHILDREN EMPLOYED AT THE POTATO HARVEST IN SCOTLAND, 1946 TO 1950

Year	Employed by Exemption	Employed During Potato Holiday	Total
1946	n.a.	17,750	n.a.
1947	n.a.	n.a.	n.a.
1948	40,148	23,119	63,267
1949	43,838	17,918	61,756
1950	37,109	15,198	52,307

Source: SRO, AF59/23/13, number 54; ED44/1/17, SED "Memorandum 15/1946, 21 February 1946;" ED54/88, "Expiring Laws Continuance Bill. Note by SED."
n.a.: not available.

The trend of employment in the Lothians did not closely follow the national trend. In 1946 no children were released in Midlothian, and those who went out "were rounded up and brought to school."[28] Although all Education Authorities in the Lothians were served with exemption notices under the Education (Exemptions) (Scotland) Act, 1947, children were employed to varying extents in all areas. In East Lothian, the average numbers employed fluctuated greatly from year to year as a result of the varying numbers of children transported daily into the county from neighbouring Midlothian. In the combined counties of Midlothian and West Lothian there was a slow, but steady, decline in the average number employed rather than the characteristic increase seen nationally (Table 9.11, Table 9.12).

TABLE 9.11. AVERAGE NUMBER OF CHILDREN EMPLOYED AT THE POTATO HARVEST IN EAST LOTHIAN, 1947 TO 1950

Year	Billeted Children	Daily Transport	Local	Total
1947		250	500	750
1948		600	600	1,200
1949		350	500	850
1950	37	295	700	1,032

Source: SRO, AF59/23/9, in envelope; AF59/23/13, number 67.

TABLE 9.12. AVERAGE NUMBER OF CHILDREN EMPLOYED AT THE POTATO HARVEST IN MIDLOTHIAN AND WEST LOTHIAN, 1947 TO 1950

Year	Billeted Children	Daily Transport	Local	Total
1947		500	West 1,350 Mid 2,000	3,850
1948		460	3,138	3,598
1949		550	Mid 1,500 West 1,100 Edinburgh 250	3,400
1950		285	2,252	2,537

Source: SRO, AF59/23/9, in envelope; AF59/23/13, number 67.

1950 TO 1962

After 1950 there was a slow and widespread decline in the number of children employed in the Lothians and throughout Scotland, which marked the start of the decline in the employment of children. Unlike the factors which led to the decline in the number of women employed at the potato harvest,

those relating to children were related largely to government departmental policy. Throughout the period, the government departments would not let employers obtain the assistance of children if there was other labour available to undertake the work. Thus, when employers applied for children they had to satisfy the Education Authorities as well as the labour exchanges and the DAS that they could not obtain other labour.[29] Indeed in East Lothian during the latter 1950s it was suggested that farmers should "sign a declaration that every effort had been made to obtain adult labour" before children could be obtained.[30]

To reduce the demand for children, further restrictions were placed on their availability. Farmers and other employers were encouraged to employ alternative types of labour. To do so the DAS imposed restrictions on the availability of children. Employers were not permitted to apply for their labour if they were located within easy travelling distance of large towns and cities, sometimes up to 15 or 20 miles, as other types of workers could be recruited there.[31] Children would only be made available in particular districts where it was known that there were problems in obtaining a supply of labour.[32] Employers had also to grow a certain acreage - from four acres upwards - before they could obtain labour; DAS officials thought the smaller growers who had only a small demand for labour could combine resources with their neighbours to harvest their crops.[33] Additionally, if employers dispensed with labour they were no longer eligible to apply, even if an emergency arose.[34]

The date when children were released from school was also deliberately delayed so that if employers wanted to make an

early start to their harvest, they had to look for alternative labour.[35] Table 9.13 shows that in all areas where exemption was still granted, except Perth and Kinross where large numbers were still granted, the starting date of the exemption period was later in 1960 than in earlier years.

TABLE 9.13. STARTING DATES OF THE PERIOD OF EXEMPTION IN 1949, 1960 AND 1962

Education Authority	1949	1960	1962
Aberdeen	24 September	3 October	8 October
Berwick	26 September	3 October	15 October
Dumfries	19 September	26 September	1 October
East Lothian	26 September	3 October	No exemptions granted
Fife	3 October*	10 October	8 October
Lanark	26 September	3 October	8 October
Midlothian	26 September	3 October	8 October
Moray	12 September	3 October	8 October
Perthshire and Kinross	3 October*	3 October	1 October
Ross and Cromarty	26 September	3 October	8 October
Roxburgh	19 September	3 October	15 October
West Lothian	26 September	3 October	8 October

Source: SRO, AF59/32; AF59/68; AF59/70.
* dates of start of potato holiday. No exemption was granted in these counties.

POLICY TO ASSESS THE NUMBER OF EXEMPTIONS TO BE NOTIFIED

The policy of the DAS was to deliberately reduce the demand for children, especially from the mid 1950s onwards, so that the number of exemptions notified was reduced and the

operation of the Education (Exemptions) (Scotland) Act, 1947 brought to an end. To do this the DAS reviewed the way in which exemption was used during the potato harvest to see whether maximum use was made of the children's services, in order to see how a reduction could be made in the number of exemptions notified.[36] Numbers could be reduced if the number of exemptions actually granted fell short of that notified. This was the case in the Lothians in 1957, where the number granted fell far short of that notified with 14% in East Lothian and 11.8% in West Lothian (Table 9.14). However, in Midlothian, only 1.7% were not granted. In East Lothian and West Lothian the number notified was substantially reduced by 11.1% and 15.7% respectively. In Midlothian the reduction was not a significant one, as the county was now dependent upon labour obtained from within the county as children were no longer transported on a daily basis from Edinburgh.[37]

TABLE 9.14. NUMBER OF CHILDREN EXEMPTED FOR THE POTATO HARVEST IN THE LOTHIANS DURING 1957 AND 1958

Year	East Lothian		Midlothian		West Lothian		Edinburgh	
	A	B	A	B	A	B	A	B
1957	450	387	1250	1228	950	838	300	327
1958	400	354	1200	1020	800	788	-	-

Source: SRO, AF59/68, number 8, number 9, number 132; AF59/70, number 4A.
A: Number of exemptions notified by the Secretary of State for Scotland.
B: Numbers of children actually employed.
Dash: Exemption not notified or granted.

The number of exemptions notified was also reduced in another way. While the number granted gave some idea of the extent of child employment in an area, it does not tell the extent to which children were employed during the exemption period. Thus, the level of employment varied greatly from area to area. Children were employed for an average of 11.9 days in West Lothian, where there was a great dependence on their labour, to less than half that figure in neighbouring Midlothian.[38] In counties where the rate of unemployment was highest, it was possible to reduce the number of exemptions notified at a faster rate than in those where the rate was lower.

During the later 1950s the DAS deliberately reduced the overall number of exemptions notified to the Education Authorities. From 1957 it reduced the numbers by about 5,000 a year, to lessen "progressively and substantially" the call upon children and bring the use of exemption to an end.[39] After the 1959 harvest, when it was announced that the scheme was to terminate after the 1962 harvest, it was officially announced that the scheme was to continue to run down at the same rate (of a reduction of 5,000 exemptions a year), "provided that other circumstances such as the weather are not abnormal." This allowed for the "minimum disturbance to the farming industry" and let farmers make their own arrangements to obtain labour.[40] In 1961 and 1962 the number notified was halved each year so that in 1962 only 3,750 were notified; 7,163 were actually granted.[41]

REDUCING THE NUMBER OF EXEMPTIONS NOTIFIED IN THE LOTHIANS

In the Lothians, as throughout Scotland, the number of exemptions notified was deliberately reduced with a view of ending the exemption scheme. However, the rate of progress at which this was achieved during the second half of the 1950s varied in the three counties as the availability of labour and the use of children was not uniform over the area (Table 9.15).

TABLE 9.15. NUMBER OF CHILDREN EXEMPTED FOR THE POTATO HARVEST IN THE LOTHIANS, 1955 TO 1962

YEAR	East Lothian		Midlothian		West Lothian		Edinburgh	
	A	B	A	B	A	B	A	B
1955	n.a.	352	n.a.	1143	n.a.	974	n.a.	731
1956	n.a.	380	n.a.	1313	n.a.	1091	n.a.	507
1957	450	387	1250	1228	950	838	300	327
1958	400	354	1200	1020	800	788	-	-
1959	250	300	700	677	500	530	-	-
1960	100	70	350	345	300	279	-	-
1961	-	-	250	232	200	158	-	-
1962	-	-	100	95	100	96	-	-

Source: SRO, AF59/68, number 8, number 9, number 132; AF59/70, number 4A.
A: Number of exemptions notified by the Secretary of State for Scotland.
B: Numbers of children actually employed.
Dash: Exemption not notified or granted in an area.
n.a.: Figures not available.

In all three counties the reduction in the number of exemptions notified was most marked between 1958 and 1959. In the former year an increased number of female adult workers was reported as being available throughout the area for

harvesting, which led the local Senior Inspectors of the DAS to decide that "consideration should now be given to dispensing completely with the employment of school children" in the area.[42] A substantial reduction was made in the number of exemptions notified for the 1959 harvest, with a reduction of more than one third in each county. However, during the 1959 harvest, the numbers granted actually exceeded the number notified in both East Lothian and West Lothian, as was the case in a small number of counties: this was an indication of the difficulty of reducing the number.[43]

Even though the 1960 harvest was a prolonged and difficult one, and some 3,600 emergency exemptions were required to be given for a further five days in Aberdeenshire, Angus, Perthshire, Banffshire, and Kincardineshire, no emergency was notified in the Lothians, and no further exemptions were granted there.[44] In East Lothian the labour situation had been considered satisfactory enough so that exemptions were no longer granted after the harvest.[45]

Additionally, in the following year the labour situation for the harvest in Midlothian and West Lothian was considered to be satisfactory. Senior Inspectors at the DAS felt that no hardship would be involved in withdrawing exemptions entirely in these counties.[46] However, the move was disliked by local branches of the Scottish National Farmers' Union, who protested to the DAS.[47] Their protest was successful, and for the 1962 harvest 100 exemptions were notified in each county.[48]

EMPLOYMENT OF EXEMPTED CHILDREN IN MIDLOTHIAN DURING THE 1950S AND UNTIL 1962

As has been noted, by the late 1950s and early 1960s the employment of exempted children at the potato harvest in Midlothian was restricted, and therefore the part played by them was limited. Farmers commented on how difficult it was to obtain the children's assistance. Mr Fleming of Upper Dean Park, Balerno found that problems could arise with employing children. As the schools allocated a number of children for a particular period to the farmers or other employers, if there was a backward season, the potatoes could not all be harvested before the children were sent to the next farm. As a result, alternative labour would have to be employed.[49] In some areas there were not always sufficient numbers of children available. In the Balerno area some farms received children from the local school, while at one farm, Pilmuir, they were sent from Loanhead.[50]

As fewer exemptions were granted, the areas where children could be obtained were restricted. Therefore, they were only released in particular geographical areas. By 1960 children were only employed by farmers in 11 parishes in Midlothian; those employed by potato merchants may have also extended the area further as they transported them to other areas to harvest their crops. The extent of their use could be seen over the "holiday weekend" of 14 and 17 October 1960 (Table 9.16). Where farmers employed children the largest numbers were found in the Borthwick and Lasswade parishes, where the greatest number of employers were also found. While some only employed one child, others had a small squad. In the Borthwick area, the farm of

Wester Middleton employed children for 236 hours over the two days.[51]

TABLE 9.16. DISTRIBUTION OF THE EMPLOYMENT OF EXEMPTED CHILDREN IN MIDLOTHIAN ON 14 AND 17 October 1960

Parish	Number of Employers	Number of Hours Employed
Borthwick	7	463.5
Colinton	1	120
Currie	1	104
Dalkeith	3	352
Inveresk	2	196
Kirknewton	1	32
Lasswade	5	472
Mid Calder	2	50
Newton	1	16
Penicuik	2	72
Ratho	1	647.5

Source: SRO, AF59/79, number 46.

Although children were employed for a large number of hours on some farms over the two days, potato merchants and labour contractors were the largest employers of all (Table 9.17). They also had the greatest extent of crop to harvest. Although it appears surprising that they continued to employ children when they had large acreages which would justify the purchase of a mechanical harvester, they had to harvest their acreages in a very short period of time, and this could only be achieved successfully by using a squad as it was faster than a mechanical harvester at this time.

TABLE 9.17. POTATO MERCHANTS AND LABOUR CONTRACTORS WHO EMPLOYED CHILDREN IN MIDLOTHIAN ON 14 AND 17 OCTOBER 1960

Merchant or Contractor	Address	Number of Hours Employed
A. G. Denholm	Musselburgh	300
Galbraith and Roy	Edinburgh	75
James Fulton Junior	Ballieston	445
Leith Prov. Co-op Society, Ltd.	Edinburgh	64
J. Stevenson (contractor)	Musselburgh	184

Source: SRO, AF59/79, number 46.

1963 TO THE 1990S

After it was no longer possible to grant exemption farmers in the Lothians continued to employ children outwith school hours. Oral evidence suggests that some farmers employed them to a greater extent at weekends and during the October week than had been done when exemption was granted in the last few years of the operation of the Education (Exemptions) (Scotland) Act, 1947.[52] However, not all farmers continued to employ children after they were no longer available from school but instead employed other types, such as local women, as they found it was easier to obtain their services.[53] Nevertheless, there was a tendency for the number employed to decline.[54] In the Balerno area, the decline was caused by a number of factors. Especially during the 1970s and the 1980s the quality of the workers fell, as children from the council house schemes were replaced by

children from private houses, with "little or no contact with the countryside."[55] Also, as these children had more pocket money they did not have the same incentive to go out to work, and the numbers declined.[56]

CHAPTER 10: EMPLOYMENT CONDITIONS

Unlike the employment conditions of women who were locally employed to gather the potato crop, many of the conditions experienced by children were regulated by statute or other regulations whose aim was to protect their safety, welfare and education. The role of these regulations became an ever increasing one, especially during the Second World War and following years, as a result of the extended employment of children. By the time of the operation of the Education (Exemptions) Scotland Act, 1947 when the employment of children was highly criticised, all aspects of employment conditions experienced by exempted children were controlled by regulations.[1]

This chapter examines the employment conditions of children at the potato harvest in the Lothians, which comprised a mixture of regulations and customary practices.

CONTROL OF EMPLOYMENT CONDITIONS

Although some of the employment conditions of children were customary practices, valid for workers engaged in other harvesting activities such as hay and grain and also noted where women were employed, others were controlled by statutes, whose role was complex. They were found in a combination of the Acts which dealt specifically with the employment of children - the various Children Acts - and the Education (Scotland) Acts which dealt with the relationship between child employment and

education. The use of the Children Acts was of comparatively recent origin in Scotland (Appendix 5). Compared to England and Wales where legislation was introduced in 1867 to regulate employment of children in agricultural activities, none was introduced until the Employment of Children Act, 1903.[2] However, the Act was a general one, and did not make any special provisions for employment in agricultural activities and none appeared until the introduction of the Children and Young Persons (Scotland) Act, 1932.[3] Even in following years the same provision continued to operate. The use of the Education (Scotland) Acts dated further back than the Children Acts (Appendix 5). However, most of them only regulated some aspects of child employment: those which dealt with the relationship between employment and education such as the age at which children could be employed and the method of their release from school. Nevertheless, they introduced the most comprehensive regulations for employment, and also specifically for the potato harvest, in the Education (Exemptions) (Scotland) Act, 1947, which was unique to Scotland.[4]

Employment conditions were also controlled in regulations which were not controlled by statute. They were largely local in nature, and made by Education Committees and other educational bodies to control the employment of children exempted from school attendance.

As employment conditions were controlled by various methods, they were described in a number of ways. When contained in statutes, regulations were included in byelaws which were operated by a Local Authority in a burgh or county.[5] Being local, their provisions varied from one county to another, not only

in the Lothians but throughout Scotland.[6] However, under the Education (Exemptions) (Scotland) Act, 1947, local byelaws were replaced by special regulations issued by the Secretary of State for Scotland which applied to all children exempted throughout Scotland.[7] Non-statutory conditions were issued in local regulations by an educational body.[8]

CONDITIONS OF EMPLOYMENT

The conditions of child employment will be described under the following headings: age of employment; hours of work; time of employment; drink, food and eating arrangements; sanitary facilities; wages; boilings; and transport arrangements.

AGE OF EMPLOYMENT

The age at which children could be employed at the potato harvest was set in the provisions of both the Education (Scotland) Acts and the Children Acts. The minimum age for employment depended on the time when children were employed: during school hours, after school hours on school days, or when a school was closed (Table 10.1). As with the age for exemption, discussed in Chapter 8, the minimum age for general employment gradually increased during the period of this study. However, in the Lothians the age was higher than that given in many other counties from 1932 onwards, which allowed for children to be

employed by their parent or guardian in light agricultural or horticultural work, at a lower age than for other types of employment.[9]

TABLE 10.1. MINIMUM AGE AT WHICH A CHILD COULD BE EMPLOYED OUT OF SCHOOL HOURS, WITH A COMPARISON FOR THE AGE OF EXEMPTION

Act / County	East Lothian	Midlothian	West Lothian	Exemption
Education (Scotland) Act, 1878	10	10	10	10 (for agricultural employ-ment 8)
Children Act, 1903				12
1920	12	10		12
Children and Young Persons (Scotland) Act, 1932	12	12	13	12
1947	13	13	13 years and 6 months	13
1962	14	14	14	not applicable

Source: R. W. Roxburgh, The Law of Education in Scotland: Text of the Education (Scotland) Acts, 1878 to 1928 and other Statutes Relating to Education in Scotland, Together with Statutory Rules and Orders, Minutes and Circulars of the SED (Edinburgh, William Hodge and Company Ltd., 1928), p. 30, p. 50, pp. 176-7; SRO, CO7/5/1/2, May 1921; CO7/5/1/8, 15 May 1932; CO7/5/1/20, p. 256; County Council of the County of West Lothian, Bye-laws Regarding the Employment of Children, (Confirmed 28 August 1948).

HOURS OF WORK

The number of hours children could be employed at the potato harvest or at any occupation was contained in byelaws made under the Children Acts. As Table 10.2 and Table 10.3 show, the number of hours varied according to the time when they were employed. Where exemption was granted, children were employed for the greatest number of hours, usually eight a day, as they were specially released from school to engage in employment. Otherwise, on school days, employment was very limited and children could not have been employed at the potato harvest (Table 10.3).

TABLE 10.2. HOURS OF EMPLOYMENT OF CHILDREN WHO WERE GRANTED EXEMPTION FROM SCHOOL ATTENDANCE IN THE LOTHIANS

Byelaws made under Act	Hours a Week	Hours a Day	Hours on Sunday
1903	n.a.	n.a.	n.a.
1920	Not stated	8	Not stated
1932	44 (maximum)	8	Not to be employed
1947	40 (maximum)	8	

Source: Midlothian Education Authority, Minutes of Meetings, 11.4.1919 to 6.4.1922, 9 March 1920; Midlothian Education Committee, Minutes of Meetings, 20.5.1930 to 10.5.1938, 10 October 1933; R. W. Roxburgh, pp. 176-7; SRO, AF59/23/7, number 85; AF59/79, number 22, number 23; CO7/5/1/2, May 1921; CO7/5/1/8, 15 May 1933; CO7/5/2/25, 3 December 1921; ED44/1/18, "Memorandum No. 54/1947, 27 August 1947."
n.a.: not available.

TABLE 10.3. HOURS OF EMPLOYMENT OF CHILDREN WHO HAD NOT OBTAINED EXEMPTION FROM SCHOOL ATTENDANCE ON SCHOOL DAYS IN THE LOTHIANS

Year	Number of Hours of Employment	Hours Between which Employment Could Take Place
1903	n.a.	n.a.
1920	2 hours of which "one hour in the forenoon and one hour in the afternoon"	With one exception between 7am and 8.30am and 4.30pm and 7pm (Midlothian)
1932	"One hour in the forenoon and one hour in the afternoon"	At varying hours between 7am and 8.30am and 4.30pm and 7pm
1947	2 hours "of which not more than one hour before school opens"	At varying hours between 7am and 8.30am; 4.30pm and 7pm from 1 April to 30 September; at varying hours between 7am and 8.30am and 4.30pm and 6pm from 1 October to 31 March
1954	One hour (West Lothian)	After 7.30am and between the hours of 5pm and 7pm from 1 April to 30 September; after 7.30am and between the hours of 5pm and 6pm from 1 October to 31 March (West Lothian)
1969	2 hours (Midlothian)	7am and 8am and 4.30pm and 7pm between 1 April to 30 September; 7am and 8am and 4.30pm and 6pm between 1 October to 31 March (Midlothian)

Source: Midlothian Education Authority, Minutes of Meetings, 11.4.1919 to 6.4.1922, 9 March 1920; Midlothian Education Committee, Minutes of Meetings 20.5.1930 to 10.5.1938, 10 October 1933; R. W. Roxburgh, pp. 176-7; SRO, AF59/23/7, number 85; AF59/79, number 22, number 23; CO7/5/1/2, May 1921; CO7/5/1/8, 15 May 1933; CO7/5/2/25, 3 December 1921; ED44/1/18, Memorandum No. 54/1947, 27 August 1947; County Council of the County of West Lothian, Byelaws Regarding the Employment of Children (Confirmed 28 August 1948); County Council of the County of West Lothian, Byelaws Regarding the Employment of Children (Confirmed 5 October 1954); County of Midlothian, Bye-laws Regarding the Employment of Children (Confirmed 24 July 1969); SRO, CO7/5/1/20, p. 256.
n.a.: not available.

When schools were closed, children could be employed for a varying number of hours across the Lothians, as throughout Scotland, and over time (Table 10.3). Differences resulted from the attitudes of educational bodies towards child employment. Where employment was approved in an area, children could be employed for a greater number of hours than those in an area where it was not approved. Such could be illustrated by the number of hours children could engage in employment in East Lothian and Midlothian. As was seen in Chapter 7, there was no severe opposition to the employment of children in East Lothian, though this was expressed in various ways in Midlothian. In Midlothian the number of hours a child could be employed was restricted, compared to East Lothian, and was among the most restricted in Scotland after byelaws were made under the 1932 Act.[10] The importance of the employment of children in an area also possibly had an effect on the number of hours children could be employed. In some counties where it was customary to give a potato holiday, as in Angus and Perthshire, children were employed for the

greatest number of hours, up to as many as nine a day. Similarly, where harvesting crops was regarded as an important occupation, concessions were made for children to work longer hours than for other types of work, as in East Lothian, Kincardineshire and Angus.[11] In East Lothian, for example, after 1947, children could be employed for an additional two hours a day if they were engaged in harvesting work. However, in the Lothians, employment outwith school hours, either on a school day or at other times, was more limited than where exemption was granted.

The number of hours children could be employed at weekends varied greatly across the Lothians. Table 10.4 shows that children could be employed for a greater number of hours on a Saturday than a Sunday. Indeed, byelaws severely restricted or prohibited employment altogether on a Sunday. However, as traditional employment patterns changed, harvesting work slowly became more commonplace on a Sunday.[12] The practice seems to have been eroded as a result of generally changing attitudes towards work on that day and the need to engage in harvesting activities whenever labour could be obtained, especially where it was in short supply. However, although byelaws were not modified to allow for more extensive employment on a Sunday, children were employed as it was one of the only times farmers could obtain their assistance when exemption could no longer be granted.[13]

TABLE 10.4. EMPLOYMENT OF CHILDREN ON NON-SCHOOL DAYS IN THE LOTHIANS

Byelaws made under Act	Hours a Week	Hours a Day	Hours on Sunday
1903	n.a.	n.a.	n.a.
1920		8 (East Lothian); 4 (between 10 and 12 years) 6 (between 12 and 14 years) (Midlothian)	None except 2 for the distribution of milk (East Lothian); 1 hour in forenoon, 1 hour in afternoon (Midlothian)
1932	44 (East Lothian): 24 (Midlothian); 20 (West Lothian)	8 for seasonal occupations, 4 for other employment (East Lothian and Midlothian); 8 (West Lothian)	2 (East Lothian and Midlothian)
1947	34 (when school is closed) (East Lothian); 16 (24 during holiday periods) (West Lothian)	6 hours (for seasonal occupation) 4 for other occupations (East Lothian); 4 (West Lothian); n.a. in Midlothian	2 (West Lothian)
1969	24 (Midlothian)	4 (Midlothian)	2 (Midlothian)

Source: County Council of the County of West Lothian, Bye-laws Regarding the Employment of Children (Confirmed 28 August 1948); County Council of the County of West Lothian, Bye-laws Regarding the Employment of Children (Confirmed 5 October 1954); County of Midlothian, Bye-laws Regarding the Employment of Children (Confirmed 24 July 1969); Midlothian Education Authority, Minutes of Meetings, 11.4.1919 to 6.4.1922, 9 March 1920; Midlothian Education Committee, Minutes of 20.5.1930 to

10.5.1938, 10 October 1933; R. W. Roxburgh, pp. 176-7; SRO, AF59/23/7, number 82; CO7/5/1/2, May 1921; CO7/5/1/8, 15 May 1933; CO7/5/2/25, 3 December 1921; ED44/1/18, Memorandum No. 54/1947, 27 August 1947.
n.a.: not available.

TIME OF EMPLOYMENT

The time children started their work depended on the number of hours they were employed each day. When employed for eight hours, they started at eight in the morning and continued until five in the evening. For fewer hours, work started later, sometimes at nine o'clock.[14]

During the day a number of breaks were given for eating and drinking. In the middle of the morning and afternoon, short breaks, "minutes," lasted about 15 minutes. Lunch, or dinner, was at noon, and lasted an hour. Indeed, its length, and the time at which it was given, was provided for in the byelaws.[15]

DRINK, FOOD AND EATING ARRANGEMENTS

Children, like women, were given hot drinks by their employers. These included cocoa, hot water (for making flavoured drinks) and tea.[16] Of the drinks, tea was most common, perhaps as it was widely consumed as an everyday drink. Children rated farms according to how good the drink was at them. Farms which had a good drink had a higher status than those which did not, and were preferred.[17]

During the period of this study it is difficult to know how widespread the practice of giving a hot drink was in the Lothians. Just as drinks were given to women in the late nineteenth century, they were also probably given to children. Although reported in the early twentieth century, documentation is not widely available until the Second World War when the employment conditions of children were closely controlled and there was a need to safeguard their health and welfare. The Scottish Education Department (SED) incorporated the practice into employment regulations which operated until exemption could no longer be given.[18] Even in following years, the tradition continued. However, it slowly declined as a result of changing tastes in drink and drinking habits. As fizzy drinks such as lemonade and cola became more popular, children brought their own drink instead. The children's social background also had an important part to play in the decline:

> By the time the working class children had left and we were down to children from private houses from across the road they didn't want to know anything about tea that came out in an urn - no thank you! So that was it.[19]

The hot drink was given at various times of the day. Traditionally it was consumed at lunch time, a time which the employment regulations suggest. However, later regulations like those which operated in Midlothian and West Lothian during the second half of the 1950s state that it should be given at all three

breaks. Farmers also recollect that they gave a number of drinks during the day.[20]

The hot drink was usually prepared by the farmer's wife or a member of the farm staff. Ann Holmes of Pilmuir, Balerno describes how it was made:

> I can remember having to make this tea up in a terrible hurry. And as I think I came in from the field to do it an as far as I can remember there was someone in the kitchen with all the pots. There was pots an pots of water everywhere boiling away furiously and bags of tea. I can remember there was a two pound bag of sugar emptied into this milk churn and the tea had to be black and it had to be sweet. It was absolutely disgusting! but that's how the children loved it. It had to be sweet! ... There was all these pints o milk.[21]

Children were also given food, another traditional element of harvesting activities. However, the practice was not widely commented upon until the Second World War when it became incorporated into employment regulations throughout Scotland owing to the need to look after properly the greatly increased number of children employed.[22] Political reasons also had their part to play. As employers in England and Wales had to provide a meal from 1942 onwards, government departments thought it desirable that a meal should also be given in Scotland, and recommendations were made after that date. Indeed, although the practice became customary, it was incorporated into employment conditions for exempted children in 1947 which were modelled

on those which operated in England and Wales. Under these regulations, a hot meal was supplied free to all children exempted from school attendance.[23]

Food was supplied by various means. Perhaps the most widespread throughout Scotland was the school meals service, which was only used to a limited extent in particular Education Authority areas in the Lothians: for children from Edinburgh employed in Midlothian, and in Midlothian county.[24] However, by the mid 1950s when Midlothian Education Authority no longer co-operated in making arrangements under the Education (Exemptions) (Scotland) Act, 1947 the service was no longer used.[25]

Food was supplied by the meals service in one of two ways. Where children were employed in the Authority area they came from, they were taken to a local school to eat their lunch.[26] In Midlothian meals were eaten in both Primary schools and Junior Secondaries such as Toxside, Fala and Soutra, Cousland, Pumpherston, Roslin, Borthwick and East Calder from 1949 until the mid 1950s.[27] Where children were sent from one Authority area to work in another, like the children from Edinburgh, food was sent out to farms, where it was eaten.[28]

As the school meals service was not used everywhere, other arrangements were made to feed the children. As Education Authorities made no other arrangements, they were left to employers. What they did varied according to their resources and willingness to make them. While some employers asked the children to bring their own lunch so they could give the cost of a meal instead, some went to great lengths to provide a good

meal.[29] Food was obtained from various sources, depending on what was convenient. At Pilmuir, Balerno, it was bought from the Hillwood Co-op van which travelled from Ratho Station three times a week. Similarly, a range of foodstuffs was given. At Pilmuir children had a Scotch pie, "a couple of spam sandwiches" and a "Hillwood bun" - a Bath bun from the Hillwood Co-op. In addition, Mrs Holmes also baked scones.[30] Other employers gave soup, a food widely suggested by the SED, which was generally disliked in some areas such as Fife. In other areas, cooked potatoes, and fruit, such as apples, was also given.[31]

Where no regulations were made to provide a lunch, children usually brought their own. Oral testimony notes how they brought "pieces" or sandwiches, biscuits, chocolate and crisps usually in large quantities, often more than they could eat.[32] However, while many brought large supplies, one farmer's wife notes that there was always one child who forgot to bring any. As the children were accompanied by their friends, they could get food from them. At Pilmuir, Balerno, the farmer's wife also made up some additional sandwiches "in case they needed them."[33]

The food and drink were consumed in a number of places. The mid morning and mid afternoon breaks were taken in the field as the breaks were too short to allow the children to go to the steading to have it there.[34] There was greater variation for the lunch as there was a variety of arrangements made for supplying food, and as the break was longer. Traditionally, lunch was eaten in the field, where children looked for a sheltered place, such as behind the hedgerows or behind potato boxes, where they could sit (Fig. 10.1).[35] Especially where the field was near the farm

steading, the children could be taken into it, to eat under cover. However, when brought into the steading, reports suggest that the children sometimes climbed over machinery, vandalised it, slid down haystacks, created mischief or injured themselves.[36] To avoid such incidents, the farmer or his workers had to supervise the children.[37] Where the school meals service was used, children went to a local school.[38]

FIG. 10.1. CHILDREN SHELTERING BEHIND SILAGE BAGS TO EAT THEIR LUNCH

Source: Field work, Blair Mains, Culross, Fife, October 1990.

SANITARY FACILITIES

Although no early evidence exists documenting whether special sanitary facilities were arranged for children in the fields, or for other types of workers, much survives for the Second World War and following years where children were granted exemption. As the matter caused much concern, discussions were undertaken on it by the Education Committee in East Lothian in 1943.[39] By 1945, employment regulations provide that all employers in that county had to provide adequate sanitary facilities, and for both boys and girls.[40] However, although regulated in East Lothian, none appeared to be used in other counties across the Lothians, until 1952 when all employers throughout Scotland who employed exempted children had to provide facilities.[41]

Various means were used to provide sanitary facilities. Farmers let the children use the lavatory in the farm house or at the steading. They also set up a basic facility in the field or else told the children to go into the nearest wooded area.[42]

WAGES

METHOD OF PAYMENT

Children could be paid by one of two methods. In the first, they were paid by the amount of work they undertook. Where they gathered a half stent, they received half the amount of pay of a worker who gathered a full one.[43] However, the second method, payment by the hour irrespective of the amount of work

undertaken, was more usual. During the Second World War and following years it became the standard method used as it ensured children were not overworked, or undertook more work than they were physically capable of.[44]

The wage rate was regulated by various means. Customarily, agreements were made between children and their employers. With the introduction of the Agricultural Wages (Regulation) (Scotland) Act, 1937 the rate could be controlled by statute.[45] However, problems arose with the Act as the minimum age for which it prescribed a rate was fourteen years at this time, and all children, as defined in this thesis, were under that age, so it could not be used to prescribe a rate. Nevertheless, employers gave the minimum rate prescribed, or else continued to use the traditional agreement.[46]

However, as the employment of children was extended during the Second World War, it was essential that a decent wage was given to them and from 1942 onwards Scottish government departments took steps to arrange rates.[47] At first, a minimum rate was given. However, it was unsatisfactory. Employers could give rates higher than the minimum, using them as a lever for enticing children from other employers, especially where labour was in short supply and in high demand. Where the children's labour was distributed between employers, problems were created as the children broke arrangements, and wandered from farm to farm in search of the highest wages.[48] Instead, a standard rate was used and all children were given the same amount of money; no employers could offer sums either below or above the rate. Its adoption, however, took place over a few years after the

1943 harvest and continued to be used until exemption could no longer be granted.[49]

Other rates of pay were given to children who were granted exemption during the latter years of the Second World War and until 1962.[50] As many children had to be transported over long distances to reach the fields, they were given a payment for travelling time.[51] However, the rate varied from travelling in one direction to one-half the time spent to and from the farm, to half an hour.[52] Additionally, a minimum wage was also given, equivalent to four hours of work if children were rained off shortly after starting work, or arrived at a farm and there was no work available, or employers had failed to cancel the children's labour.[53]

WAGE RATES

Wage rates varied according to the method used to pay the children. Where paid by the hour, both boys and girls were given the same rate for gathering. However, boys employed at the heavier tasks, such as emptying baskets, received additional money.[54]

During the late nineteenth and twentieth centuries the wage rate increased. In the 1870s and 1880s in the Newbattle area of Midlothian children were paid 1/- a day.[55] Between 1917 and 1921 those in the Whittinghame area of East Lothian, received a rate which rose from 2/6 and 3/9 a day, an increase which sources also note for other casual workers and farm servants.[56] In

Midlothian during the first few years of the Second World War the rate was very low, at 6d. an hour, compared to other counties where 1/- or more was given.[57] Although no suggestions were made as to why the rate was as low, it was increased in the following year to 8d. an hour, the same as in East Lothian.[58] Rates across the Lothians continued to rise alongside those of other agricultural workers.[59] Between 1947 and 1957 the rate increased for all children in the Lothians by a further 6d. an hour (Table 10.5) as did the minimum wage rate and payment for travelling time.[60]

TABLE 10.5. WAGE RATES PAID TO CHILDREN UNDER EDUCATION (EXEMPTIONS) (SCOTLAND) ACT, 1947

Year	1947	1949	1956	1957
Rate per hour	1/-	1/1d	1/3d	1/6d

Source: SRO, AF59/79, number 11, number 22, number 23, number 25; CO7/3/1/40/1, 2 July 1953, 1 July 1954; ED44/1/18, "Memorandum No. 54/1947, 27 August 1947", ED44/1/20, "Memorandum No. 36/1949, 8 August 1949"; ED44/1/21, "Memorandum 31/1950, 10 August 1950"; ED44/1/27, "Circular No. 330, 7 June 1956"; ED44/1/28, "Circular 363, 24 June 1957"; ED44/1/31, "Circular 438, 23 June 1960."

By the 1970s and the 1980s wages were far in excess of those given in earlier years for children as well as adults.[61]

BOILINGS

Like women, children were also given a boiling of potatoes, a "perk" of a small amount of potatoes. In the Lothians, as in other counties, the use of the "perk" varied from employer to employer. Some gave it as a customary practice, and had reasons to do so: it promoted good relations between themselves and the children, and as children were allowed to take potatoes, it stopped them stealing any. Some employers would rather see children take potatoes instead of concealing that they were stealing them. Some employers had reasons not to give it. As with the women, the children took more potatoes than they should. In some cases if their bags were not large enough, every possible means was used to take the potatoes home. Children also filled their trouser and coat pockets, and also put them down their jumpers. One farmer's wife suggested that they looked like "moon men."[62] They also adopted some of the practices used by the local women to hide potatoes in hedges and collect them when they could get assistance to take them away.[63]

TRANSPORT ARRANGEMENTS

Children got themselves to their place of work in a number of ways. They walked, cycled, or their parents took them by car, and if they were near a bus route, they came by bus. Employers also collected them at meeting points and transported them using their own vehicles, as was also the practice where local women

were employed.[64] There were, however, variations in the role of the employer in providing transport. Some let the children find their own way to and from their work. Others supplied transport in both directions. Indeed, in East Lothian, byelaws made in 1937 and 1947 provided that where employers transported the children to work, they had also to do so after their work was completed at night.[65] Also, some let the children find their way to their work and gave them a lift at the end of the day.[66] One farmer who did so believes that it acted as an incentive for the children to come to him. Also, as the children were carrying potatoes they did not unload them over the road on their journey home. As in other areas, all transport was provided free.[67]

During the twentieth century transport arrangements became incorporated into byelaws and other regulations. In the Lothians the first were found in byelaws in East Lothian in 1937.[68] During the Second World War they were extended further, as throughout Scotland, as it was necessary to transport children on a large scale and safeguard their health while they were transported. New regulations were extended to cover the type of vehicle used as open covered vehicles, such as trailers and open lorries, were disliked and they were prohibited towards the end of the war; such a condition was found in other areas where children were exempted.[69] While no longer used in Midlothian and West Lothian after 1962, arrangements continued in byelaws in East Lothian.[70]

The employment conditions of children at the potato harvest comprised a mixture of customary practices and regulations and statutes. Table 10.6 shows that during the twentieth century, and especially during the Second World War and in following years, many of the customary practices were incorporated into regulations, and continued to be so until exemption could no longer be granted in 1962.

Although the impact of the legislation and regulations was great, it served to ensure that the children were employed under decent conditions. When the greatest control was placed on the employment conditions, most steps were also taken by Education Committees to ensure that employers adhered to them (Appendix 6). Even after some employment conditions were no longer incorporated into regulations, they continued to be applied. Those which were applied were the traditional conditions: the giving of a hot drink, and some arrangements to transport children to and from their work. Of the conditions, however, only one, the giving of a boiling, was not subject to regulation.

TABLE 10.6. EMPLOYMENT REGULATIONS AND THEIR RELATIONSHIP WITH STATUTES AND REGULATIONS IN THE LOTHIANS

Employment Condition	Custom	Date Adopted as a Regulation	Date No Longer a Regulation.
Age of Work	No	1872 onwards	Not applicable
Hours of Work	No	1903	Not applicable
Time of Employment	No	1872 onwards	Not applicable
Drink	Yes	Second World War	Where exemption no longer used
Food	Not widespread	Second World War	Where exemption no longer used
Eating arrangements	Yes	Second World War	Where exemption no longer used
Sanitary facilities	Yes	Second World War in East Lothian; later in others	Where exemption no longer granted
Wages:	Yes	1937	Not applicable
Minimum payment	No	Second World War	Where exemption is no longer granted
Payment for travelling	No	Second World War	Where exemption no longer used
Boilings	Yes	No	Not applicable
Transport arrangements	Yes	1937 in East Lothian; Second World War in other areas	Generally 1962 but continued in East Lothian

PART 6: EMPLOYMENT OF IRISH MIGRATORY WORKERS

CHAPTER 11: IRISH MIGRATORY WORKERS AND THEIR EMPLOYMENT CONDITIONS

INTRODUCING THE WORKERS

Two distinctive groups of migratory Irish workers were employed for harvesting the potato crop in the Lothians during the period 1870 to 1995: Donegal workers, males who worked on their own or in a small group at general seasonal agricultural work and Achill workers, squads of workers who were only employed at the potato harvest and for dressing or riddling the potato crop. Of the two, it was the Achill workers who made the greater contribution to the potato harvest in the Lothians, as they were specifically employed to harvest it.

THE DONEGAL WORKERS

The first group were men, who travelled from Co. Donegal, Armagh and Down in Ireland to Northern England and Southern Scotland.[1] In Scotland, they were employed in an area from Berwickshire, Roxburghshire, Peebleshire and Selkirkshire in the south-east to Ayrshire, Wigtownshire and Lanarkshire in the west and south-west. Further north they extended into Stirlingshire, Fife, Perthshire and Angus. Eastwards they extended into the Lothians, where the greatest number in Scotland were employed.[2]

The workers undertook general agricultural work, which included potato planting, turnip thinning, hay making, grain harvesting, potato harvesting and turnip shawing. Although a number arrived in May or even earlier, the majority did not arrive until early summer. They continued to work until the end of the grain and potato harvests; some stayed for the turnip harvest, and would return home before Christmas.[3]

Workers had a number of work patterns in Scotland. They could follow a migratory pattern across the country, visiting a number of farms for specific tasks before moving onto others for further work.[4] Others could be employed on one farm throughout the entire season. They would often be employed at that farm for a number of years. In such instances the farmer would write to them asking for their services, and whether they would come over. Sometimes he asked them to bring other workers with them.[5]

While the employment of the Donegal workers was widespread in the Lothians, only a few farm records exist which show their employment. In 1905 one farmer in East Lothian employed 10 men for the grain harvest and potato harvest for varying periods from 1 August until 1 December; of those three commenced employment on 1 October.[6] At Whittinghame Home Farm a number were employed. In 1912, for example, six were employed for potato work during October and November. In the following year, a further six Irish workers were employed at potatoes for up to 24 days. In 1919 two were employed for between 17 and 22 1/2 days in October and early November and

for 12 days in November and early December.[7] In later years Irish were employed in other localities of the Lothians.[8]

Relationships between the workers are sometimes noted in farm records. Those from Whittinghame Home Farm show that some of the men were related, and travelled together. Others, who were unrelated, also travelled in small groups. Some, however, worked alone and joined men already employed on the farm.

The employment of Donegal workers died out in the years following the Second World War at a time when the practice of migratory work to other parts of Britain was rapidly declining or had died out.[9] The decline was due to mechanisation of farm tasks, which made great headway during the post-war period, thus lessening the demand for workers. However, as the potato crop took longer to mechanise than other crops, specialised potato workers were still required well into the second half of the twentieth century.

EMPLOYMENT OF ACHILL WORKERS

Traditionally the Achill workers or squads of migratory workers were employed by potato merchants who grew their own potatoes or contracted with farmers to grow them. As growers, they required their own labour to harvest their crops, sometimes extending to very extensive acreages, and which could be distributed throughout a number of counties across Scotland.[10] To harvest the acreages, large quantities of labour was required. Some merchants such as James Fulton Junior of Ballieston, Glasgow

employed between six and eight squads of Irish workers; Andrew Galloway of Orchardfield, Kirknewton, two.[11]

It is difficult to know exactly when potato merchants started utilising Irish workers. Migratory workers from Connaught and the west of Ulster, particularly the counties of Mayo and Donegal, had worked at the grain harvest during the early nineteenth century. Although migration for the grain harvest had become "a well established element in Irish rural life" by the 1830s, there was, however, a very limited demand for Irish women to work at the potato harvest after the grain harvest was completed.[12] It is likely that the demand would not have increased to any great extent until the great expansion of the potato crop and the potato industry, during the 1850s, 1860s and 1870s. By that time Irish women who had settled in Ayrshire were employed for harvesting the potato crop.[13] It was not, however, until the late nineteenth century that migration started from Achill Island, Co. Mayo, the most important area from which migratory potato workers were drawn. Statistics from the Department of Agriculture and Technical Instruction suggest that in the early 1890s there was a large increase in the number of people seeking work in Scotland from the Westport area, which included Achill. O'Dowd calculates that at that time each family on Achill had more than one migratory worker in it and "practically every able-bodied man, woman and child" from the island had been at potato work.[14]

RECRUITMENT OF ACHILL WORKERS AND COMPOSITION OF SQUADS

Potato merchants employed a number of Irish men who were experienced in potato work, mostly from Achill Island, as gaffers.[15] Most were full time employees in charge of squads for harvesting and dressing the crop. They had various tasks to undertake. At the end of the old potato season in May they returned to the west of Ireland to recruit squads for the sole purpose of harvesting the new potato crop in Scotland from June or July until perhaps mid November; some seven or eight workers from some squads were required for dressing the crop during the autumn, winter and spring months. The gaffers then brought the workers to Scotland in a group, transported them from farm to farm, ensured that they undertook the work, and paid them each week.[16] However, their work went further than this. They were also responsible for looking after the conduct and welfare of the workers: if the workers did not act appropriately, "the gaffers would pull them up."[17] If any workers got into difficulties, the gaffer would help them in any way he could.[18] One source reports how they had "the interests at heart, and who take a pride in providing an opportunity for improvement and employment to those who need it."[19] Consequently, they were described as father-like figures.[20]

Many of the squads were recruited from within a small geographical area in the west of Ireland. In 1937 all the potato workers employed in Scotland were recruited from three counties, Co. Mayo, Co. Donegal and Co. Galway. As in earlier years the majority of them, almost 70%, were from Co. Mayo while nearly

25% were from Donegal; the remaining few were from Galway. Within the three counties, workers were recruited from specific districts. In Co. Mayo all were recruited from the Westport and Belmullet areas, which included Achill Island, from which about half of the Irish potato workers came, hence the name given to the workers, "Achill workers." In Co. Donegal all were drawn from two areas, Glenties, which included Arranmore Island and Dunfanaghy. In Co. Galway a small number were drawn from Galway and Oughterard.[21]

Potato merchants and their employees report that they had to be careful where they recruited their gaffers and workers:

> The Irish Donegal against the like of County Mayo, you had to be very careful. The gaffers were usually left to draw their own folks and they had to come from these counties.[22]

> One had to be careful because you couldn't mix the Donegal ones with the Mayo ones ... because they didn't like each other. Both thought they were better workers than each other and they had this enmity that usually erupted at the weekend. During the week they were okay, they worked okay. But if they ever went into the same pub - the men I'm talking about, not the women - if they went into the same pub there would be what you called a Donnnybrook. There would be black eyes and bleeding noses on the Monday morning, eh, all in good fun though. But we made a policy of not mixing them.[23]

Thus, when the Galloways of Orchardfield recruited a new gaffer, Tony from near the Co. Donegal border of Co. Mayo, John Galloway could recollect being asked if he was "not frightened taking him in" as they already had a gaffer, Teddy, from Achill Sound.[24]

Gaffers went around their own home areas contacting people who had been on their squads and asking whether they knew anyone who wanted to go to the potato harvest. If they also knew people employed in other areas who would go with them they would write to them. Some also advertised in local newspapers.[25]

CHARACTER OF SQUADS

Many squads were composed of relatives and neighbours. In 1907 Dr John McVail, the County Medical Officer for Stirlingshire and Dumbartonshire describes the workers as:

> Often members of one family; they are brothers and sisters, or brothers, sisters and cousins, accompanied, it may be, by a representative of an older generation, who is the parent of some and the relative of most. The family monopoly is said to be carefully guarded.[26]

McVail's statement can be supported by field recording together with documentary sources from the Lothians and other areas where the squads were employed.[27] Though the family connections were strong, it was not common to find married people in the squads. According to Bridgid (Madden) Joyce, of

Curraun, Achill, one of Anne O'Dowd's informants, "there were exceptions to this when the husband, wife and children went provided the children were strong."[28] Some families, tired of "struggling for an existence" or living on the dole, closed up their homes for the season and took all the household members with them to the fields.[29] Even into the 1970s some squads still comprised family members and relatives. As Allan Duncan comments of workers during the 1980s, "a lot of them was related to the gaffer. His sons sometimes came with him; nephews came."[30]

Some of the Irish squads were also augmented by a small number of Scottish workers, hired when the gaffer and squad reached Scotland. In the early years of the twentieth century some were drawn from the casual labouring class, or the "tramp class" in the cities.[31] They were "a degraded type" in total contrast to the "well conducted" behaviour of the Irish:[32]

> They are a low type, many of them the very lowest, debauched and filthy in their habits, coarse and foul in their language and quarrelsome. Scenes of disorder do occur among them which occasion the attention of the police.[33]

Even in later years some Irish squads continued to be augmented by Scottish workers who were not always employed throughout the season. Not all were of a low social standing. Andrew Galloway, potato merchant at Orchardfield, augmented Irish squads with women drawn from the Stonyburn, Fauldhouse,

Blackburn and Whitburn areas of West Lothian.[34] Others were drawn from casual workers available in other districts of the Lothians, even into the 1970s and 1980s.[35] Some of the Scottish workers also had Irish connections: they had been migratory workers who had settled in Scotland, or were related to workers who had been migratory workers.[36]

SIZE OF THE SQUADS

The size of the squads varied from area to area and over time. In 1904 the Department of Agriculture and Technical Instruction for Ireland notes that the squads were composed of between twenty to thirty workers, a size which was quoted by many later sources until well after the Second World War.[37] By 1937 the "normal" squad comprised "about twenty-five workers and a gaffer." Even in later years similar figures are reported from field evidence.[38]

While the average size of squads gives a guide to their general size, it does not show the complexities of the sizes of merchants' squads. In the Edinburgh District and Calder District in the 1920s squads ranged from 13 to about 36 workers. Table 11.1 shows how this varied at a number of farms in the two districts between 1921 and 1927. The size of squad sent to the farms depended on a number of factors: the number of workers a gaffer could organise, the acreage of potatoes to be lifted, the capacity of the digging implement, and the size of the accommodation provided on the farm. As all the tasks of lifting

the crop, timming (emptying), or pitting it, were connected, a dearth of labour at one task meant that the work was not carried out smoothly and efficiently. This meant that the largest squads were found on farms which could easily employ them. These included North Gyle and Sighthill where there were 33 and 36 workers respectively in 1926. Some of the smaller squads were found on some of the smallest farms, such as Malcolmstone in 1923 and South Gyle in 1922 and 1923.

TABLE 11.1. NUMBER OF WORKERS IN SQUADS EMPLOYED AT CERTAIN FARMS IN THE EDINBURGH AND CALDER DISTRICT OF MIDLOTHIAN, 1921 TO 1927

Farm	1921	1922	1923	1924	1926	1927
Saughton Mains	26	-	-	-	24	18
Corstorphine Bank	24	-	-	14	-	-
Southfield	25	-	-	-	-	16
Braehead	24	-	-	-	33	12
West Craigs	25	-	-	-	-	-
North Gyle	17	-	-	-	33	-
Morton Mains	-	-	-	27	-	33
Ingliston	-	-	30-40	22	-	-
West Ingliston	-	-	-	19	-	-
Sighthill	-	-	-	-	36	-
Meadowfield	-	-	-	-	25	-
Northfield	-	-	-	-	21	-
South Gyle	-	16	13	-	-	-
Norton Mains	-	24	-	-	-	-
Gogar Bank	-	21	-	18	-	-
Gogargreen	-	-	-	18	-	-
Freelands	-	-	-	20	-	-
Ransfield	-	-	-	22	-	-
Easter Currie	-	-	22	-	-	-
Malcolmstone	-	-	14	-	-	-
Roddinglaw	-	21	22	-	-	-
Old Liston	-	-	c. 20	-	-	-

Source: SRO, DD13/1603, number iv, number viii, number xxiii, number xviii; DD13/1625, number iv, number xxv; number l; number lxii; number lxiv.

The size of squad sent to a farm could vary from year to year. Some, like Ingliston, had a large squad one year and a considerably smaller one during the following. Certain factors may have influenced this, the most important being the amount of crop sold to the merchant. Without further information it is difficult to know the exact reason for this on these farms. Nevertheless, on other farms like Roddinglaw, where workers were employed for up to six weeks, Gogar Bank, and Saughton Mains there was less variation in the size of squads found at the farms from year to year. Here it may be that the same acreage was to be lifted by the merchant.[39]

Table 11.1 also suggests that some squads were employed on more than one farm in the area. In 1921 squads consisting of 24 workers were employed at Braehead and at Corstorphine Bank, while at Southfield and West Craigs squads of 25 workers were found during this year. In 1924 squads of 18 workers were found at Gogar Bank and Gogargreen; at Ransfield and Ingliston squads of 22 were found. A similar situation was found again in 1926 at North Gyle and Braehead farms. Here a number of potato merchants had bought potatoes in the district, and some had bought the crop at more than one farm. They would have sent a squad to lift potatoes on a number of neighbouring or nearby farms.

Squads were primarily composed of teenagers and young adults. Many were described as "young girls and boys from fourteen years of age and upwards."[40] While this statement was made in 1908, it applied equally well in later years. In 1937, 19.2% of the males engaged in potato work were under 16 years of age; for females it was 20.2%.[41] After the Second World War, the largest numbers of females who obtained new travel cards to allow them to engage in agricultural employment in Britain during the months of May and June in 1948, 1949, 1950 and 1951 were under 20 years of age.[42] Even in later years, and until the 1980s fieldwork evidence from the Lothians indicates that many workers were of that age and also in their early twenties.[43]

According to the oral testimony of former workers' experiences collected by Anne O'Dowd and the Department of Irish Folklore at University College Dublin, many workers went to Scotland for the first time at the age of 14 or 16.[44] However, in some of the poorer districts where seasonal earnings played a very important part in the household income, children went at an earlier age. In 1910, families on Achill Island sent children of eleven years of age to the potato fields; Joyce notes how Achill was the only part of Ireland where parents were "compelled" to send children of that age to Scotland.[45] In later years young children were also found from other areas like Belmullet, where eleven year old John Connor of Blacksod, Co. Mayo went to the potato fields for the first time in 1924.[46] As not all were strong

enough to gather the potatoes, some, like Michael McGreal, whose uncle were a gaffer, was employed to boil cans of water for tea.[47]

Children under the school-leaving age were not usually found in the squads. Although merchants discouraged their gaffers from bringing them across, a number of the less strict ones let families bring them over.[48] Consequently, if they were below the minimum age for employment under the Children Acts they could not be legally employed and were bound to go to school under the Scottish Education Acts.[49] If children were found on the squads, it was said that some gaffers entered the children on their wage books as older than they actually were.[50]

Some of the other members of the squad were adults who had started as youngsters and continued to cross each year for this work, like Katie Fallon of Curraun, Achill, who went for fourteen years until she married.[51] There were few adult males in the squads; most were either old men or "lads from sixteen to twenty-one years of age."[52] Some workers were elderly persons.[53]

Although the age structure of the squads would suggest that many workers were employed for only one or two seasons, a number were employed for many. George Lothian comments that:

> There would be the same workers every year, like. There would be about half a dozen or ten that would be across for the first time. More often than not it was the same workers with the same squads that came across with them.[54]

SEX STRUCTURE OF THE SQUADS

As work at the potato harvest was considered to be easier than many other types of work to which the Irish migrants took, many women were found in the squads. As has been noted, there were few adult males. For some males, potato work had a lower status than other types of seasonal agricultural work, and was not attractive. Sean Ó Ciaráin comments that the Scottish potato workers were "not in the same league as the beet men," the sugar beet harvesters - "the elite of the Irish migratory agricultural workers" - who returned to Belmullet, Co. Mayo with their new suits and large wages.[55] Males who could undertake the heavier work were also attracted by the higher wages paid by other work. As a result, many males used the potato work as an introduction to seasonal migration, and the movement by males from the potato fields to public works or other work is well documented by writers such as MacGill and Ó Ciaráin and in oral recordings collected by Anne O'Dowd and the Department of Irish Folklore, University College Dublin.[56] Some of the males who left for other work returned after an absence of a number of years. Some returned accompanied by their children to introduce them to this work, a practice which continued into the 1970s and later.[57] Others returned when they were unable to undertake heavier agricultural work.[58]

A small number of males, notably from Achill Island, continued to work in the potato fields with the aim of becoming gaffers, as the job had a high status. The job sometimes ran in families as fathers and sons, brothers and brother-in-laws were

employed at it. As George Lothian comments, "unless your folks had a squad you had no chance of getting a squad in these days. It's still the same yet."[59]

THE RATIO OF MALES TO FEMALES IN THE SQUADS

The squads had a large number of females in them. Of the 425 workers employed by five potato merchants in 1905, more than half, or 265 workers, were females.[60] In the Achill area, squads were generally composed of "a considerable number of women."[61] This pattern was typical of squads on the whole, and in 1906 on most of the farms they comprised from sixty to seventy percent of the workers.[62]

There were variations in the ratio of females to males through time. In 1909 the number of females was increasing at the expense of males.[63] By 1937 the squads comprised "a few male adults, the remainder being women, boys and girls."[64] However, the same report shows that of the 1,787 workers employed at this work some 61.7% of them were males, the remaining 38.3% were girls and women.[65] At this time a number of male migrants spoke of the difficulty of obtaining migrant work in either Scotland and England owing to the economic situation in Britain and so work in the potato fields would have given them more security as they obtained constant work throughout the entire season they were employed in Scotland.[66] In later years there were fluctuations in the ratio of males to females. By the early 1970s an increasing number of males was employed, a fact

which would support the general trend where local workers were employed in Scotland. At Aberlady Mains, after that date, only males were employed to gather; they were accompanied by their woman cook.[67]

Statistics from the early twentieth century suggest that although the workers moved from county to county there were contrasts in the number of males to the number of females found in some of the largest potato growing districts. In Ayrshire during 1907 "there were invariably more women, usually twice as many as men."[68] Figures for central Stirlingshire and Dumbartonshire were similar, where between 55.4% and 60.8% of the workers were females.[69] Although the ratio was lower in Midlothian and West Lothian, in East Lothian it was even lower: "on many of the farms no females appear[ed] to be employed." However, on some farms, this statement does not hold true as the ratios varied from farm to farm.[70] Such could also be seen on a local level in the Edinburgh and Calder Districts of Midlothian during the mid 1920s (Table 11.2). On some farms, such as Ingliston in 1924, Saughton Mains in 1926, and Southfield in 1927, the ratio of males to females was 1:1. On others, like Norton Mains in 1924, it was common for a larger number of females to be found than males. However, the opposite was found at Meadowfield and Sighthill in 1926.

TABLE 11.2. COMPOSITION OF SQUADS ON TEN FARMS IN THE EDINBURGH AND CALDER DISTRICT OF MIDLOTHIAN DURING 1924, 1926 AND 1927

Farm	1924	1926	1927
Morton Mains	16 women 10 males	-	16 women 17 men
Sighthill	-	14 girls 22 men	-
North Gyle	-	19 girls 14 men	-
Meadowfield	-	6 girls 19 men	-
Braehead	-	17 girls 16 men	7 girls 5 men
Saughton Mains	-	12 men 12 girls	12 women 9 men
Northfield	-	11 girls 10 men	-
Southfield	-	-	8 girls 8 men
Norton Mains	10 girls 6 men	-	-
Ingliston	11 girls 11 men	-	-

Source: SRO, DD13/1603, xxiii; DD13/1625, number l, number lxii, number lxiv.

Although the ratio of males to females resulted from the economic situation in Ireland and the workers which the gaffers could recruit, the variation in ratios did not have a great effect on the way the squads were employed in the fields. Men were required to undertake the heavier tasks in the field such as timming or emptying barrels, riddling, loading lorries, and working at the pits. In addition most undertook the digging with graips, though some women did dig with them.[71] Women, however, usually undertook the gathering work.

After the Second World War there were a number of changes in the nature of the squads. Although most gaffers continued to come from Achill and recruit squads from Ireland, some settled permanently in Scotland.[72] While some continued to go back to Ireland each year to gather workers, others recruited them from local workers living in Scotland.[73]

For the gaffers still recruiting in Ireland there was a number of changes in the squads. Although some squads continued to be drawn from Co. Mayo and Co. Donegal, gaffers went further afield to areas other than those from which the workers were traditionally drawn when it became difficult to organise squads.[74] Thus, when Peadar O'Donnell visited one "bothy" (workers' accommodation) some 15 miles from Glasgow in 1960 he found a squad composed of a gaffer from Co. Mayo, one woman from the Rosses, Co. Donegal, and other people from Tipperary town, Co. Limerick, Derry, Co. Sligo, Letterkenny and Co. Kerry.[75] An increasing number of workers were drawn from the cities and towns rather than the rural districts from which they had traditionally come.[76]

The character of the squads recruited from Ireland also altered. Fewer groups of relatives and neighbours were found, and there was an increase in the number of unrelated males and females and also children. There was also an increase in the number of married couples found on some squads who brought their children with them who were "much too juvenile to be workers"; some were infants.[77]

By the early 1970s some of the workers who went were "those at the very bottom of the social heap."[78] They included itinerants, some of whom had been found in squads in earlier years, gypsies, who were also regarded as undesirable on squads, "dropouts, children escaping from home and not much missed, men with alcoholic difficulties, or women with marital problems."[79] Some were boys who had left orphanages.[80] There was also a number of drifters and "drop outs." Many of the young members were poorly educated. Some went as it was the only employment they could get.[81]

The make up of these squads created a number of problems. The presence of very young children was regarded as a continuing problem not only in Ayrshire, Wigtownshire but also throughout the Lothians.[82] They could not be employed and had to be looked after while their parents worked. The workers' accommodation was not considered to be suitable for them and Sanitary Inspectors were concerned that they could be burned or injured at the cooking facilities. In an attempt to prevent children from being brought over to Scotland Sanitary Inspectors, such as James Gibson of East Lothian tried to get a clause inserted into the byelaws made for seasonal workers under the Housing (Scotland) Act, 1966 which would prohibit children under a certain age being housed in the accommodation given to seasonal workers.[83] Inspectors were left with little power to deal with this, although they could remove children and their parents to other premises, as had been successfully achieved in West Lothian during 1971.[84] In some squads there were problems with alcoholism and other social problems arising from individuals on the margin of society.

The workers were of a poorer quality than the earlier squads. They "didn't have the same robustness." It was said that "later crowds couldn't stand the weather."[85] John Anderson comments that:

> They were not nearly so hardy to work with. To start with the Irish workers would work right through, whether it was rain or drizzle. At the latter end there they would run for shelter if they got a shower of rain. That's how much it varied.[86]

NUMBER OF ACHILL WORKERS EMPLOYED AND THEIR DECLINE

It is difficult to tell how many Irish workers were employed at the potato harvest in the Lothians and across Scotland. Although the Department of Agriculture and Technical Instruction for Ireland issued statistics of the number of Irish migrant agricultural workers from 1880 to 1915, there are a number of problems with the statistics. The statistics were compiled from three sources: a survey undertaken by the local constabulary in June each year at the homes of the migrant workers in Ireland; secondly, a yearly tally which showed the number of temporary migrants who left the main Irish ports, excluding Dublin; and thirdly, details of the number of special harvest men's tickets sold by the Great Southern and Western Railway during the summer months to go to Dublin, and bookings to Scotland and England.[87] However, the sources do not tally. The railway and port statistics are always higher than the figures from

the constabulary.[88] Nor do they account for all the migrants who travelled. James Handley, Cormac Ó Gráda and Anne O'Dowd accept the suggestion that the statistics account for only 60% of the migrants.[89]

These reports sometimes give estimates of the numbers of Achill workers employed. In 1905 it was estimated that between 1,500 and 1,600 were employed in Scotland while in following years the figures varied between 1,300 and 2,000 workers, numbers which were stable at that time.[90] In the year 1909 to 1910 at least 1,000 of them were women from Achill, Belmullet, the Donegal Islands and Co. Kerry, a figure which was lower than the 1,000 girls from Achill which P. J. Joyce suggests at this time.[91]

Even in the First World War it is difficult to know how many crossed for work at the potato harvest. At that time, workers were deterred from crossing from Ireland for a number of reasons. Some were frightened to travel, and in 1915, for example, there was a smaller than usual migration to Scotland and England.[92] There was also the fear of conscription, even though a number of male migratory workers from Creeslough in Co. Donegal went to Scotland to join the army there.[93] Nevertheless, as was to happen in the Second World War, there was an increase in the acreage under potatoes, which demanded a larger labour supply to harvest. In 1918 it was estimated that 2,542 Achill workers recruited by 91 gaffers were required to harvest the Scottish potato crop, a figure far higher than that estimated for 1905.[94]

Between 1918 and 1937 there was a decline of 17.5% in the numbers employed. This was in proportion to the general decline

in the number of seasonal migrants travelling as agricultural workers to both England and Scotland. By 1937 it was estimated that a total of 1,787 migrated for potato work.[95]

It is very difficult to calculate the number of Achill workers who came to Scotland and the Lothians for work at the potato harvest during the Second World War and in following years. Although the Department of Industry and Commerce in Dublin collected statistics of the number of travel permit cards issued, which enabled workers to travel from Ireland to Britain, there are a number of problems in calculating statistics for the Irish potato workers (Appendix 7).[96] Information was only collected about the number of new cards which were issued. No records were kept of the cards which were renewed each year after the 12 month expiry date. Additionally, the statistics only indicate the number of persons wishing to travel rather than the number that actually did so. Although statistics recorded the number of permits issued to persons seeking employment in various occupations such as agriculture, food, drink and tobacco, mechanics and garage assistants, for a period after July 1948 they do not have a separate heading for migratory workers.[97] However, owing to the restrictions placed in general on agricultural and turf workers, most of these were migratory workers and where statistics exist for this class the greatest number were undoubtedly migratory workers. Of the 3,148 cards issued to males for agricultural work in 1944 only 152 were not given to seasonal migrants.[98] The statistics do not include information on the destination of the workers or the type of seasonal work they undertook so it is not known whether they went to England or Scotland or if they went

for emergency agricultural work, sugar beet harvesting or harvesting potatoes. While this is a particular hindrance for looking at the number of males, it does not apply to the same degree for females. As women usually only went to the Scottish potato fields the record is possibly more accurate. Indeed the largest numbers of female workers were granted permits to travel in May and June each year and were from the areas of Co. Donegal and Co. Mayo from which the potato squads were recruited.[99]

Other sources suggest that during the Second World War the labour situation varied over the years. In 1941 a reporter for the Mayo News doubted whether the girls who went for potato work would risk the crossing that summer.[100] In the following year Irish workers were reaching Scotland in "substantial numbers" and steps were taken by the Agricultural Executive Committees (AECs) and the Department of Agriculture for Scotland (DAS) to recruit squads, which continued until the end of 1948. By 1947 there were "very strong grounds" for assuming that the movement of seasonal workers to Britain was not greater than in pre-war years.[101] Increased cultivation and to an extent organised squads would have contributed to this. It is not known, however, how many workers came over exclusively for work at the potato harvest.

After the Second World War statistics relating to the number of Achill potato workers are fragmentary. In western Dumbarton in the late 1950s between 229 and 252 workers were employed each year. This figure, however, dropped sharply from 211 to 148 between 1961 and 1962.[102] A similar fall was found in

East Lothian during the latter two years where there was a reduction from 432 workers to 350.[103] During the 1960s there was a slow decline in the numbers employed in the main potato districts. By 1971, only 18 gaffers were found in Ayrshire and the Lothians, who employed between 360 and 540 workers though some sources suggest that as many as 600 or 800 workers were employed.[104]

A number of merchants continued to employ Irish migratory workers in the Lothians during the 1970s and 1980s. James Fulton Junior continued to employ squads from Ireland until 1987.[105] Irish workers who stayed in bothy accommodation in the Lothians throughout the year were employed in the early 1980s by the merchant Alex Denholm of Musselburgh.[106] In other areas, which may have included the Lothians, workers were still reported to come from Ballina and Mulraney in Co. Mayo.[107] Jonathan Bell suggests that in 1988 squads were still going from the Arranmore area of Co. Donegal.[108]

While gathering squads from Ireland appeared to completely disappear during the 1980s, squads were in fact still recruited from Ireland to dress or sort the crop, as well as to undertake other harvesting work such as that of calabrese, who were still employed during the 1990s and as late as 1995.[109] They were males who were accommodated in bothies throughout the year.

DECLINE OF THE ACHILL WORKERS: THE CAUSES

While it is difficult to show numerically the decline in the number of Irish potato squads, it is easier to examine the reasons for their decline in numbers. These are complex, and the result of a number of factors which existed in both Ireland and Scotland, attracting workers away from the work or forcing them to look for alternative employment.

In Ireland much of the decline was due to changed economic and social conditions. For migrants with a small holding, or the sons and daughters of small holders, "migration [was] a way of keeping a grip."[110] They went to the potato fields primarily as a way of supplementing their household incomes and also providing very important income. It was a way of raising cash to buy goods such as clothes and food which could not be obtained from their smallholdings and also for paying the rent. Workers sent home their savings, which amounted to £8 to £10 a season in the early twentieth century.[111] For some families these savings were essential for them to continue living in the area. A number of O'Dowd's informants from the inter-war years went to the potato fields as there were very few opportunities for them at home: there was "no option for it in them days."[112]

However, after the Second World War there were great changes in the Irish economy and a rise in the standard of living. The subsistence way of life lived by the Achill workers and other migratory workers appeared less attractive, and people looked towards a better way of life. To maintain a satisfactory standard of life, the increased cost of living meant that earnings from

seasonal migration played an even greater part in the household income so a greater proportion of their time had to be spent at seasonal work in Scotland or England. As a result, holdings declined and became less economic and so more money had to be found from other sources. When sons were to take over their parents' holdings they were discouraged from doing so because of the economic situation, and they looked towards joining other brothers who were working full-time in Britain.[113] In Co. Donegal and Co. Mayo in the early 1950s seasonal migration had largely been replaced by permanent migration where workers settled permanently in Scotland and England, and only came home on holiday. Further emigration opportunities opened up during the 1960s:

> In the 'sixties America opened up for the Irish. Lots of good families that came across for the potatoes went to America and did well and pulled other workers away. In the sixties ... John Deering, oh, he's not here this year. Oh! his brother's a supermarket manager in New York and he went across to work with him. So this was the big swing over. ... These crofters went over to America.[114]

The economic differences between Ireland and Scotland also had an affect in the decline of workers wishing to migrate for the potato harvest:

> And ... when they came across originally ... the beer was dear here but their wages was high. So when they went back there for their two

> month they had plenty o money. But the way things went in Ireland, things got dear and when they went home they couldn't afford to go back home. An the folk, the wages were that bit higher than they were over here you see.[115]

By the late 1970s, there were further changes in the economic situation in Ireland:

> In the latter part of the seventies you just couldn't get Irish folk to come over at all. They were better off at home, as simple as that. They didn't need to work. They were starting to get social security over there.[116]

Even where workers came to Scotland they were attracted by other work. As a result of the work offered by AECs and contractors in England during the Second World War and in following years, a number of men, including some from Achill, went to alternative employment, such as work in the sugar beet factories, where higher wages were paid, and employment conditions were more favourable.[117] John Harvie of the merchant James Fulton Junior of Glasgow, which employed squads in the Lothians, notes how the workers were attracted by public work, which is supported by other sources in Ireland:

> See when the public works started - the tarmacing - all these boys came on. I lost all my good men ... Oh much better money, and not only that, they were living in a house. You

> know they got a landlady. ... In the 1960s they started to drift away into mostly public works because oh they were mostly hardy lads used to working hard. But when they got in there you know they used to drive tractors on the farms there. They would take a wee shot of the tractor and things like that. Once they got into the public work places a lot of my good men were driving earth scrapers for about four times what I would be giving them, and they were getting top wages with us ... And of course they told their brothers and their cousies [cousins] and they all started drifting away. When we finished up we had a job getting a squad put together.[118]

Women were also attracted by other opportunities, which included work in service and in later years, nursing.[119] Even after workers came across to Scotland for a few weeks they changed their employment. For merchants and gaffers this created problems as they lost members of their squads and as the workers were paid to come over from Ireland, also lost out financially:

> Before I started [22 years ago], and they used to come over, we used to pay their fare across. And they'd be here for a week and they would be away to the building sites. But, eh, for a while we kept money off them until they got their fare back and then obviously we couldn't hold onto them like after that.[120]

By comparison, work at the potato harvest was less attractive than other types of work available in Scotland with the

result that the number of workers who went to the work declined. As parents no longer went to the fields, their children no longer followed a set and accepted pattern as a matter of course, and so the tradition was broken and it declined.

Changes in practices of merchants buying and selling potatoes also had an effect on the numbers of Irish squads employed at the potato harvest. After the Second World War there was a gradual decline in the practice of buying the crop growing in the ground, and an increase in the practice of buying potatoes ready bagged by the ton.[121] With the change, farmers became responsible for harvesting their crops with their own labour, instead of the merchant. It was impractical for them to arrange for squads to come from Ireland, and as they could not supply them with a great quantity of work they organised their own squads from local workers or employed a contractor to organise a squad. Some of the contractors in the Lothians were gaffers who continued to recruit squads.

Farmers and merchants also looked for ways to cut costs in growing the crop. One way they could achieve this was to employ local labour and transport them from centres of population to where they were required to work. In 1949 there was an increase in local labour in the Ayr district of Ayrshire.[122] By 1958 improved transport facilities in Midlothian allowed the practice to be extended further, while in 1962 a greater amount of local labour was employed in Dumbartonshire; during that year there was a sharp decline in the number of Irish workers employed in the western part of the county.[123]

The adoption of spinner diggers and elevator diggers which could successfully harvest first earlies and second earlies with their vigorous shaws played a part in the decline in the number of Irish workers employed. Where they had to be dug by hand with the potato graip they had required large quantities of labour. With a mechanical digger work progressed faster and fewer workers were required to harvest the same acreage. The complete mechanisation of the crop also had an effect as fewer squads were required.[124]

There was a rapid decline in the number of farms where Irish were accommodated in all the potato growing districts during the late 1960s, which had an affect on the number of Irish workers employed. In the western part of Dumbartonshire no workers were accommodated after 1967 and in West Lothian after 1973.[125] By the early 1970s the number of farms which accommodated the workers was very small indeed. While there had been 60 farms in Ayrshire in 1967, by 1972 there was only 21. In Wigtownshire there was a very large decline from 25 farms in 1965 to 6 in 1972.[126] The decline was caused by Local Authorities tightening up their byelaws for the accommodation of seasonal workers, which included potato workers, so they would conform with the model byelaws introduced under Section 171 of the Housing (Scotland) Act, 1966. For farmers their accommodation "didn't come up to the standard laid down by the local authority."[127] As a result, the workers became more costly to employ.[128] While some improved the accommodation and continued to employ squads of Irish workers, others did not and employed local workers instead. Indeed, at that time there was

said to be an increase in the employment of local labour over Irish workers.[129] At Aberlady Mains, for example, when the Sanitary Inspectors took an interest in the accommodation the number of workers was "certainly cut back." As a result, the gaffer, Pat McHugh, recruited a smaller sized squad from Ireland who were to be accommodated on the farm, and the rest of the workers were recruited in Scotland.[130] Some farmers even stopped growing potatoes.[131]

EMPLOYMENT CONDITIONS

As for the local women and children, the employment conditions of the Achill workers will be discussed under a number of headings: hours of employment, food and eating arrangements and wages.

HOURS OF EMPLOYMENT

During the early twentieth century the workers were employed six days a week, Monday to Saturday.[132] Field recordings relating to the mid twentieth century show that they were employed Monday to Friday, and on Saturday morning until noon.[133] Although no work was undertaken on a Sunday, during the latter years of the Second World War when large acreages were to be harvested, work had to be undertaken on that day as well.[134]

The number of hours employed varied throughout the twentieth century. For the first earlies, some of the harvesting was conditioned by the state of the potato trade for this crop, as in the west of Scotland.[135] In the early twentieth century workers were employed for sixty hours a week. Work started at 7am and continued until 5pm. In later years the day was slightly shorter as work started at either 7.30am or even 8am.[136] During the day short breaks were given, for food and drink. "Breakfast" was given at either 9am or 9.30am and lasted for fifteen minutes; lunch or dinner was always given at noon, and lasted for an hour. In the afternoon, a short break, "minutes," was given at 3pm, for ten or fifteen minutes.[137]

On a Sunday it was usual for workers to go to chapel.[138] In the Kirknewton area workers had the opportunity of going to East Calder or Ratho. Workers preferred the former as it was more convenient to go to, and easy to reach by bus.[139] Workers employed at Aberlady Mains went to North Berwick or Musselburgh.[140] Some of the gaffers insisted that the workers should go to chapel. George Lothian recollects that for one squad:

> Every Sunday morning the bus would arrive to take them to chapel. And lo and behold if they werenae on the bus! This was that father-like figure said that they had to go to chapel every Sunday morning. And there was some of them hiding in the woods and the bus wouldn't go away until they got them.[141]

At the weekends workers also visited one another:

> They visited one another and they always seemed to hang about our places [bothies which belonged to the Fultons] because there was, I should have thought, more activity in visiting each other. The girls used to like to visit friends in some of the other squads and would come along to Aberlady on sort of Friday, Saturday and Sunday. Sunday would be a great day because they went to the chapel in North Berwick, you know. And they would come back and have their tea in the different bothies and chat about who did that and so and so, you know.[142]

Into the 1980s squads employed by different merchants also played football against one another.[143]

FOOD AND EATING ARRANGEMENTS

Food was obtained from a number of sources. John Harvie recollects that the some of the Donegal people brought some provisions with them:

> Some of them brought salt pork over. You know a lot of them were crofters at home. And they cut big slices off it and you could smell it when they were cooking.[144]

Workers were given a free supply of potatoes. From the farms themselves, workers could sometimes also obtain milk. Additional foodstuffs were bought from other sources. Rural areas

were well served with travelling grocery vans which went round the farms and outlying areas sometimes two or three times a week.[145] Additionally, workers also went to the nearest villages. As one farmer's wife comments, "they would do a lot of trade."[146]

The diet of the workers appeared to be very varied. In 1905 Wallace gives a very favourable account of their food:

> The food which they eat is a fairly good dietary for the labouring class. They are allowed by the farmer to take all the potatoes they can use, and potatoes, along with fish, eggs, etc., usually constitutes the evening meal when work is over. The morning meal consists of tea, and bread and butter, with cheese and tinned meats. For their mid-day meal, which is brought with them to the field, they have sandwiches made of bread and butter and ham, and generally tea - never beer or spirits ... .[147]

However, the workers sometimes returned to their accommodation at lunch time to eat their food which would comprising a cooked meal, usually including potatoes.[148] In 1970 the evening meal at Aberlady Mains consisted of:

> Great mounds of smiling Red Craigs Royals, that were more appetising still by the thought that we had dug them in the morning. Meat and vegetables piled high, though on Fridays we had no choice but to have fish. ... Tea and cake completed our dinner.[149]

Nevertheless, though the diet was varied, there was a large dependence on potatoes, which came to form a large and important part of their diet when they were employed at the potato harvest.[150]

Various arrangements were made to cook the food. Workers could cook their own, or they could appoint a member of the squad to do so. As early as 1914 some gaffers appointed one or two women in a squad to cook and buy food.[151] After 1919 the practice became more widespread as it was made compulsory for merchants to appoint someone to look after and clean the accommodation in Midlothian and Ayrshire and the burghs of Edinburgh and Dunfermline.[152] With the introduction of byelaws made under Regulations in 1931 and an Act in 1938, the practice was further extended and was found in all areas where the accommodation for potato workers was regulated by byelaws.[153] Oral evidence together with documentary sources reports that the practice was widespread after the Second World War.[154]

Oral evidence suggests that there were variations in the practice of appointing a woman to cook and look after the accommodation between merchants and through time. In the bothy at Adam Brae and Hatton Mains in the Ratho area, the gaffer's wife looked after the workers for a number of years until the gaffers obtained their own accommodation. At Adam Brae a girl or woman was then appointed who stayed at the bothy full time. As she worked indoors she did not undertake any gathering work. However, "occasionally" she would change with another of the women who gathered, so that she could undertake gathering.[155] Variations were also noted with other squads.[156]

There were advantages in cooking the food for the workers. It was easier on cooking facilities to cook meals for all the workers, rather than for them to cook it individually. Additionally, they could return from the field to a ready meal.

WAGES

Overall, the wages paid to the potato workers were lower than those given to the other migratory workers who undertook emergency agricultural work. Although this could be partly accounted for by the fact that women and youths were paid lower wages, the workers were given a number of "perks" in addition to the money.[157]

Farmers, and sometimes merchants, supplied living and sleeping accommodation for the squads. Bedding, usually straw filled bags, was supplied by farmers; merchants generally supplied blankets, usually a pair.[158] Workers were supplied with coal for cooking and heating purposes. A number of sources point to the workers' liberal use of the coal. At Freelands, for example, they were said to use "an enormous amount of coal" when they were employed at the farm.[159] However, at some farms the amount given was regulated. John Galloway recollects that the workers were given a set amount: "they understood that if they burnt it too quick they would have to gather some wood to burn."[160] A free supply of potatoes was also given. Additionally, all costs of transporting the workers from Ireland, and in Scotland, was met by the merchants and the gaffers.[161] As a result, the Irish had few living costs during the time they were employed in

Scotland, and therefore had the opportunity to save money to take back to Ireland.

However, these "perks" were not given when gaffers altered their payment practices to contract themselves and their squad to harvest the crops at a fixed price per acre, which was introduced by the Nevin brothers during the early 1970s, and started to become widespread thereafter.[162]

Members of the squads were paid by different methods. Those employed at digging and gathering the potatoes were paid by the hour, a method which was customary with other types of workers which undertook the work. Their income was not steady as they were only employed when they were employed in the fields. During periods when the market was glutted, or during periods of rain they were not paid. Although field recordings indicate that workers could return to work after the rain stopped, it was estimated that they might lose about twenty-one days work in a season through inclement weather.[163] Another estimate suggests that "a fair average" was one day or less a week.[164] The members of the squad which undertook heavier work such as the timmers who emptied baskets, barrelmen who handled barrels, and the gaffers, were paid upstanding wages which were not controlled by the weather. They therefore had a steady income.

When the crop was dug by graip the workers were paid according to each graip, that is each pair of workers which dug and gathered the crop. Although they shared the wage, there is evidence in some areas that the digger was paid a higher wage than the picker.[165] From 1905 onwards the usual wage was 5s. for each pair of workers or graip, a day. Rates for individual workers

ranged from 2s. to 2s. 6d. for each worker.[166] By 1913 wages varied from 4s. to 6s. a day for each pair in some districts, and were generally given between 25s. and 30s. a week.[167] Wages remained at that level. In 1919 they were reported to be 5s. 6d. per day or 11s. per graip.[168] As a result of a strike in the Girvan District in Ayrshire during the following year workers received an increase of 2s. a day.[169] Many workers interviewed by O'Dowd who were employed during the 1930s recollect that they were paid 6d. an hour.[170] Although there was a general increase reported in the wages, Gray reports that in 1936 there was a reduction in the rate to 5d. an hour, or 4s. 2d. a day for each worker. However, that rate was lower than that quoted by the Irish government during 1937, of 7d. an hour.[171] Wages paid to barrelmen and riddlers were higher than those given to diggers and gatherers. In 1904 barrelmen were paid between 18s. and 21s. a week, and riddlers 20s. During that same year gaffers were paid the highest wages of all, between 25s. and 35s., a figure which sources report in following years.[172]

From 1937 wages were subject to rates fixed under the Agricultural Wages (Regulation) (Scotland) Act, 1937.[173] Workers continued to be given all the "perks" that existed before the introduction of the Act, until gaffers hired themselves and their squad by the acre.[174] Workers were paid according to the day or half day. If they stopped work due to inclement conditions, they were even paid by the quarter day.[175] Males continued to be paid at higher rates than females. Nevertheless, rates varied from employer to employer. For example during the early 1970s, males

received wages varying between £14 10/ and £18 and women between £10 and £15 for gathering.[176]

THE GAFFERS AND THEIR REPUTATIONS

The workers had varying attitudes towards the gaffers. Ó Ciaráin comments that "generally speaking, the gangers were not a bad bunch of men." Alex Denholm recollects that his gaffer was "a real good Irish gentleman, very good to his workers."[177] Others viewed them as "well-to-do" and "very respectable people."[178] In the experience of John Galloway, the workers "respected their gaffers."[179] Some gaffers must have been liked by their workers, as they continued to work under them for many years.[180] However, not all shared these views. John Harvie comments:

> To the girls he was a father-like figure; to the men he wasn't very good because he didn't pay them enough and he didn't let them be wild enough that way. You know he was strict with the men; he had to be. The girls, I would say the girls were all, did what he told him and respected him but the men, well there was no carry on with him, no rough stuff, football in the bothy as it were, throwing stuff. He was quite strict that way. What they did out of his sight wasn't his business. Where he was in control he was strict. ... Oh! they were quite strict all the gaffers, I will say that.[181]

However, if workers did not like their gaffer they generally looked for another for the following year.[182] Even within a season "some of the workers would have switched over to a better gaffer or a better job."[183]

Complaints were made about the gaffers, as not all were good to their workers and looked after them. Both documentary and oral evidence suggests that some gaffers had bad reputations. In 1920 Miss Thornton reports that they accepted poor conditions for their workers which they in turn had to accept.[184] Workers like those at Roddinglaw during the 1920s report that their gaffer, Peter Sharlane, made his workers work during bad weather, a complaint also made of gaffers in other counties.[185]

Perhaps most complaints were made that the gaffers cheated the workers of wages. Because of the way wages were paid, the payment of wages was open to abuse, especially if the gaffers were not honest. Until well through the twentieth century gaffers worked out their pay requirements according to the number of hours worked and the number of persons to be paid which was given to the merchant. Merchants gave them bulk wages in cash which was to be distributed to the workers.[186] Gaffers could abuse the system by working the workers hard so that if a certain tonnage had to be lifted, particularly for the first and second earlies, the orders were filled in a few days and the workers were unemployed for the rest of the week. He would then record that the workers had taken a week to harvest the crop, and pocket the additional money.[187]

Additionally, the gaffer could also claim that there were more workers employed than actually were. Where workers were

sick and unable to work he could record that they were employed, and pocket their wages where they were paid by the hour. To combat such practices the merchant's fieldsman would go round the squads to undertake a "headcount," count the number of workers in each squad who were employed.[188] Gaffers were also reported to sell the merchants' potatoes without him knowing. When he did this he could not record the digging time in his wage books, and so the workers could not be paid for their work; additionally he would also get the price of the potatoes.[189]

Although dishonest practices were certainly recorded from both oral and documentary sources, some writers questioned if the abuse was as widespread as it was reported. Ó Ciaráin notes how the system of bulk wages was open to abuse and gave rise to "rumours, complaints, and suspicions." He had heard that some gaffers kept a pound for every pound paid to the workers, but did not think the system was as bad as that.[190] Even in 1970 Father Eugene McDermott writes:

> I have heard it said that some foremen exploit their workers, reducing their wages, or failing to meet the conditions entered into, on one pretext or another. I could find no evidence of this, and I would say that if the maltreatment exists, it must be on a very small scale.[191]

Although some gaffers did gain a bad reputation, gaffers in general played an important role in securing the employment conditions of their workers as they acted as a mediator between the potato merchant and the workers. Like the local women, the

Irish workers could approach the gaffer if they were unhappy. However, at various times during the twentieth century, attempts were made by the workers to improve their conditions (Appendix 8). Although of limited success, oral evidence from potato merchants and their employees suggests that in general a union would not have been effective in improving their conditions. This was thought to result from the character of the workers. Comments were made that they "didn't like anyone interfering in their life": they were "always suspicious of outside agencies coming in."[192]

CHAPTER 12: HOUSING CONDITIONS OF THE SQUADS OF IRISH MIGRATORY WORKERS

Although many of the people employed to harvest the potato crop were transported to the potato fields from their own homes each day, those from Ireland had to be accommodated on farms or other premises. This chapter looks at the housing conditions for the squads of potato workers, the Achill workers, and the way it altered during the twentieth century. As the accommodation became closely regulated by legislation during the early twentieth century, it will be considered in the light of changing regulations.

EARLY SOURCES AND ATTEMPTS TO IMPROVE THE STANDARD OF ACCOMMODATION

The first detailed reference to the accommodation of squads of potato workers in Scotland was in 1897, when the Sanitary Inspector for Stirlingshire and Dumbartonshire, Dr John MacVail, undertook a survey after a squad on a farm in western Stirlingshire was infected by an outbreak of enteric fever.[1] Dr MacVail continued to survey accommodation in his area during 1898, 1899 and 1902 in an attempt to improve the standard which he describes as "so utterly indefensible as regards both health and decency."[2] In 1903 a further survey was undertaken of conditions in Ayrshire and Perthshire by James Grierson, a land agent from Achill Island, Mayo, after complaints were made to him by some of his tenants who returned from the potato harvest

in Scotland.[3] Patrick MacGill's novels The Rat Pit and Children of the Dead End describe accommodation on a farm in Rothesay during 1905.[4]

It was not until 1906 that the first detailed description of accommodation in the Lothians is found. After a copy of Grierson's report was sent to the Scottish Council for Women's Trades in October 1906 the General Secretary, Margaret Irwin, was instructed to undertake an enquiry into the matter to highlight the "appalling" conditions which existed.[5] As most of the potatoes had already been harvested by that time, the survey was undertaken in the Lothians where harvesting was still in operation. However, as some of the best conditions were found in the Lothians, Irwin states that the survey was "of a limited character," and "necessarily slight"; it surveyed the accommodation on eight farms, which were unnamed.

The report shows that the standard varied considerably from farm to farm.[6] At two it was "bad": a squad of about 30 workers of both sexes was accommodated in a shed and in a granary situated above. Both were "dark, dirty and ill-ventilated" and there was no place for the workers to cook their food or dry their clothes. The workers "arranged their accommodation ... just as they pleased; nobody minded them." At another, a shed and granary was used by four men and sixteen women for a period of three days. The "place was clean and dry, but entirely destitute of furniture of any kind"; cooking was undertaken in an adjoining shed. At one farm where workers were employed by the Leith Co-operative Society, the accommodation was "sufficiently comfortable." Twenty-four women were accommodated in a "wind

and water-tight" bothy. It was sufficiently lighted and ventilated and had a good fireplace. Unlike in Dr McVail's reports, Irwin did not find accommodation provided in byres.[7]

The report was wide enough in scope to indicate to Irwin that there was an urgent need to improve the housing for potato workers. In order to get official interest in the subject, and an enquiry into the subject, her report was sent to John Sinclair, the Secretary of State for Scotland.[8] By April 1907 the Local Government Board for Scotland wrote to the Sanitary Inspectors in a number of Local Authorities where potato workers were employed to get improvements made to the standards of housing.[9]

The Local Government Board for Scotland issued a report which shows for the first time the accommodation provided in nine counties throughout Scotland, including the three counties of the Lothians.[10] It discussed seven aspects of the accommodation, also described by Dr McVail, Grierson or Irwin, which would improve the standard provided.[11] Many types of accommodation found in the Lothians were similar to that in other counties. These consisted of cottages, old farm houses, barns, lofts, granaries, sheds and other buildings. In East Lothian, as in Ayrshire and Dumbartonshire, specially erected accommodation was provided, mostly of corrugated iron. In all nine counties very little overcrowding was reported. Even where separate sleeping accommodation was provided for each sex, in some instances cases were reported throughout the Lothians where workers of both sexes slept together in the same apartment. In East Lothian there appeared to be "no regulation or provision as to the separation of

the sexes"; at one farm the accommodation was "handed over to the squad when they come and they make their own arrangements about the separation of sexes." Where workers were of mixed sexes, they were family groups, and would not separate themselves, particularly where other squads were accommodated at the same premises. Bedding consisted of hay or straw spread over the floor, and blankets; the straw was provided by the farmer, the blankets by the merchants and sometimes by the workers themselves. Although beds were not usually provided, at one or two farms in East Lothian bedsteads were found, while in Ayrshire, potato boxes were sometimes used; MacGill notes the practice at Rothesay.[12] In all areas the water supply was generally "satisfactory."

Privy accommodation was noted for its "conspicuous" absence not only in the Lothians, but elsewhere. In Midlothian none was found at twenty four of the thirty two farms where workers were accommodated; in West Lothian there was none at fifteen of the twenty six farms. Where it was given, it was usually shared by both males and females. However, they tended not to use it. As it was considered to be a luxury at home, one Inspector suggests that the workers were not accustomed to using it. Thus, as it was not used, farmers would not provide any. The arrangements for cooking and eating varied greatly, according to the nature of the accommodation given. If in farm cottages, workers could cook at the fires inside, or on hot plates. They could also cook either in the workers' apartments, or if they were accommodated in outhouses, on an open fire in the farm yard; the latter was widely reported. Additionally, cooking also took place

in cart sheds or in boiler houses. Although the workers usually cooked their own food, a few instances were reported where this was undertaken by the farmer's wife. Washing facilities were usually very simple. Though they were not described in the reports for the Lothians, in Renfrewshire the potato merchants provided wash-hand basins and pails. In Ayrshire, it was general that no special arrangements were made; often it was undertaken at the farm pump. Various arrangements were found for drying clothes which ranged from hanging them on hedges in the vicinity of their accommodation in the Lothians to drying them at the cooking fires in other areas.

There was much division of opinion about whether the accommodation was satisfactory or not. While the Sanitary Inspectors for East Lothian and Perthshire consider that it was "suitable" and "sufficient," in other areas Inspectors suggest that only some types were suitable. For example, the Officer for Dumbartonshire and Stirlingshire was of the opinion that granaries and bothies "as a rule are suitable" while barns were "usually deficient in light" while "the ventilation is variable." He did not consider that byres were satisfactory, as they were "inadequately lit, unventilated, dark, chill and cheerless," qualities which are noted in MacGill's description of accommodation at a farm at Rothesay.[13] Although the Officer for Renfrewshire thought that old byres were unsatisfactory, young beasts' byres provided "excellent" accommodation, particularly where they had sloping concrete floors, and had been well cleaned and vacated for between four to six months.

As a result of the survey, the Local Government Board wrote to a number of the Local Authorities to get them to improve the standard of accommodation.[14] It suggested that the Sanitary Inspectors or Medical Officers of Health could inspect the premises, and if they were unsanitary could effect improvements, like those which had been achieved by the inspection work of Dr John MacVail.[15] Steps were taken to make improvements in Perthshire, Stirlingshire and Dumbartonshire while in Ayrshire, "considerable improvements" were made.[16] However, none were made in Midlothian. As no complaints of the accommodation were received by the Surburban District Committee, it thought it unnecessary to take any. Until they were reported to them, they would take no action.[17] In the Calder District, the Committee thought it unnecessary to make any improvements as the workers were only employed at the various farms for a very short period; such a view was also expressed in other areas.[18] In other parts of the Lothians it is not known what steps were taken.

Although various steps were made to improve conditions in Scotland, some District Committees and Sanitary Inspectors thought that more should be done to improve the housing conditions as the powers under Section 73 of the Public Health Act, 1897 were not thought to be effective in securing further improvements.[19] In Scotland, the powers were more limited than those in England where the accommodation was controlled by byelaw. The accommodation given to hop pickers could be regulated under the Public Health Act of 1875 and of fruit pickers and vegetable harvesters, under the Public Health (Fruit Pickers' Lodgings) Act, 1882.[20]

Although no immediate steps were taken to alter Section 73, attempts were made to secure improvements by placing pressure on the county Authorities and their Officers who could use the powers which were available to them. The accommodation which was considered "bad" could be brought up to the standard of the good.[21] On 13 June 1910 the Local Government Board issued a circular to Local Authorities in landward areas which suggests that the accommodation given to potato workers should be systematically inspected and all powers available to the Local Authority should be used to prevent overcrowding and insanitary dwellings.[22] As a result, further surveys were undertaken of the accommodation in the Suburban District, Gala Water District, Lasswade District, and Calder District of Midlothian, Ayrshire, Dumbartonshire, Renfrewshire and Stirlingshire.[23] Various steps were taken to deal with the accommodation found in these areas which were similar to those undertaken in earlier years. Although the Sanitary Inspector for Ayrshire secured improvements, as in 1907, again the Suburban District and Calder District Committees in Midlothian would not take further action in the matter as they did not think the accommodation was a nuisance under the Public Health Act of 1897.[24] Even in the following years pressure continued to be placed on the Local Authorities in the Lothians, as in other counties, and on the Scottish government departments, to take further steps to improve the accommodation.[25]

THE ROYAL COMMISSION ON THE HOUSING OF THE INDUSTRIAL POPULATION OF SCOTLAND, RURAL AND URBAN

The government did not take any further steps to review the accommodation of potato workers until 1912, when the Royal Commission on Housing was appointed to inquire into:

> The Housing of the Industrial Population of Scotland, rural and urban (with special reference in the rural districts to the Housing of Miners and Agricultural Labourers), and to report what legislative or administrative action is, in their opinion, desirable to remedy existing defects.[26]

However, their report was not published until 1917.[27] Although the Commission collected much material on the housing of potato workers throughout Scotland, their report concentrates on conditions in Ayrshire where the largest number was employed, so that it could be used as a representative picture of the accommodation found in other areas.[28]

Many of the conditions which the Commission describes were similar to those of earlier surveys and reports written by Sanitary Inspectors and Medical Officers. Again, workers continued to be primarily housed in farm outbuildings; rarely were they accommodated in specially erected buildings.[29] While some farm buildings formed "fairly satisfactory" accommodation others did not. Again, beds were seldom provided. Usually hay or straw, supplied by the farmer, was scattered over the floor of their sleeping apartment. Blankets and rugs were supplied by the

potato merchant. Some flooring materials, such as earth, were unsuitable in these apartments; MacVail also made a comment about the value of different types of flooring materials in his reports of 1897 and 1907.[30] Similar statements were also made about the facilities provided for washing, drying clothes, cooking facilities, and the lack of storage facilities for food. Tables "were seldom provided."[31]

There were two particular matters which showed that the housing arrangements were "lamentably deficient." The Commissioners note that the separation of the sexes, which Dr MacVail regards as "an essential condition of decent living," was "practically non-existent."[32] Even where it was possible to separate the workers, they would not occupy separate apartments, particularly where two or more squads were accommodated at a farm. Where workers *could* sleep in separate apartments no one saw that they *were* separated. As in earlier surveys, the lack of provision of sanitary arrangements was also criticised. As then, the Commissioners note that when provided they were rarely used. While some were kept in a filthy state and were "quite unusable," others were situated in exposed situations. Again, it suggests that many of the workers were unaccustomed to using sanitary arrangements. The Commissioners thus made a recommendation that if they were provided in suitable locations, and were supervised by "some responsible party," the workers would become used to them; they were to be supplied by the potato merchant.

The report also discusses the general habits of the workers. Like some of the Inspectors' reports from 1907, it refers to the

"want of cleanliness and general untidiness" of the workers.[33] Buildings were kept in an untidy state and were rarely swept out. Rubbish and waste food were not properly disposed of and were thrown away outside the accommodation. Sanitary conveniences were kept in a filthy state. The Commissioners made a number of suggestions as to why the workers kept their accommodation in that condition. They "admitted" that it was of a character which did encourage them to "take a pride in it."[34] As the workers were employed for long hours, they were "not much inclined" to pay any great attention to the cleanliness of their surroundings, particularly where they were accommodated for a very short period. However, the Commissioners agree with Dr Elizabeth McVail, the Sanitary Inspector for Ayrshire, who was of the opinion that the untidiness was "to a large extent preventable." She suggests that "a very considerable improvement would soon be apparent" if the responsibility for looking after the accommodation was "fixed" or placed on an individual.[35] The Commissioners made a recommendation that an individual should act as an orderly, and should be appointed by the potato merchant.

The Commissioners came to the conclusion that the accommodation given to potato workers was "thoroughly unsatisfactory."[36] In "many" cases workers faced "conditions of hardship and even of degradation."[37] They made a recommendation that conditions should be improved. Although the workers had not demanded improved accommodation, a number of Inspectors consider that it was all the "more necessary" that the housing standard should be raised "to improve their

habits and conditions of life."[38] However, O'Dowd, writing about the Report, suggests that "there is certainly more than a veiled implication that it was only the Irish workers who expected conditions to be better than what they were."[39] She cites evidence given by Dr Campbell Munro, the County Medical Officer for Renfrewshire, who was of the opinion that the present accommodation was not "unsatisfactory" as the workers were only accommodated on the farms for very short periods, and therefore it was "impracticable" to make any "elaborate arrangements" for accommodating them. O'Dowd asserts that his view was "obviously shared by many." However, Munro was in fact one of the few officers who held that view, and many Medical Officers of Health and Sanitary Inspectors had wanted legislation to be introduced as early as 1908 to improve conditions; successful attempts were made in some areas to secure improvements to the standard of accommodation. The potato merchants, whom O'Dowd criticises had also wanted to see improvements made, and the Glasgow and West of Scotland Potato Trade Association, whose members employed the greatest number of the Irish migrant workers, had written to the Secretary of Scotland, Sir Thomas Munro, asking for co-operation in "having the conditions under which these labourers work enquired into and improved if thought necessary."[40] Others, such as local priests like the Reverend Father T. A. Hayes of Troon, wished to see improvements.[41] Shortly afterwards, the Gresham Committee in Dublin was to take an interest in the subject from 1919 to 1923 (Appendix 9).

The Commissioners made a number of recommendations, some of which had been made as early as 1897, when the first

survey of accommodation was undertaken.[42] The first step towards any improvement was to define who was responsible for the accommodation: farmers argued that it was the potato merchant's responsibility, while the potato merchants said it was the farmer's. The Commissioners made a recommendation that the responsibility for providing accommodation should be allocated between the landlord or proprietor of the farm, the farmer and the potato merchant. The farmer was to be responsible to the Local Authority for providing accommodation of a "satisfactory" nature. Where it was insufficient, the farmer should be empowered to call upon the landlord to provide it "on terms to be arranged between them." If they could not agree, then the matter could be settled by an arbiter to be appointed by the Board of Agriculture. The farmer was to report to the Local Authority in March, or in another appointed month, the number of workers which he proposed to accommodate and also the "extent and nature" of the accommodation. After the Local Authority was notified, an Inspector would be sent to inspect the accommodation. If satisfactory, it would be approved and the Authority would then state the number of workers which could be accommodated at it. If it was not, he could call on the farmer to provide additional accommodation, or instruct him that if it was used he was committing a punishable offence. The farmer was then responsible for intimating to the potato merchant the number of workers that could be accommodated and to the Authority the date when he expected the workers to arrive and the numbers of each sex so that the Authority could ascertain whether there was likely to be any overcrowding.[43]

The potato merchant was responsible for looking after the accommodation when it was occupied by the workers. He had to ensure that there was no overcrowding, that the premises were kept clean and in order, and left in a similar condition to that when the workers arrived. In order to undertake that, a caretaker could be appointed to look after his interests.[44]

The Commissioners recommended that each Local Authority should have power to frame byelaws which regulated the accommodation given to the potato workers.[45] If necessary, the Local Government Board would be empowered to compel the Local Authorities to use the power. The byelaws were to contain many of the recommendations made by the Commissioners, including the giving of intimation to a Local Authority, determining the persons responsible for the accommodation and regulating its nature and extent. They were also to provide that where special huts were to be erected the Local Authority should be given the opportunity to view the "site and plans of the huts before building is commenced, including approval of the material of construction, arrangements for carrying off rain-water, and proper means of access to the huts."[46] Although O'Dowd suggests that the report "did little more than recommend the framing of byelaws to deal with the housing of potato workers," this step was of utmost importance in improving housing conditions for workers.[47] As was seen as early as 1907, Sanitary Inspectors thought that the introduction of byelaws was essential if they were to have the necessary powers to improve conditions.

Although according to O'Dowd "the recommendations of the Commissioners were virtually ignored," they were given effect in Section 45 of the Housing, Town Planning, etc. (Scotland) Act, 1919, which received its royal assent on 19 August 1919.[48] Under the Section Local Authorities were open to make and adopt byelaws for the "proper accommodation" of potato workers and a number of other types of seasonal workers which included navvies, harvesters, fruit pickers, herring gutters "and other workers engaged in work of a temporary nature, as the Board may from time to time prescribe." These byelaws implemented many of the recommendations made by the Commission. Additionally, a clause was also inserted which allowed a Local Authority to suspend any byelaw "in cases of emergency" in any District area or part of a District if it applied to the Board of Agriculture for Scotland. Additionally, the byelaws could be extended to cover "other matters" which could be prescribed by the Scottish Board of Health (SBH).[49]

THE ADOPTION OF BYELAWS

Shortly after the Act came into operation, the SBH took steps to issue a set of model byelaws which could be used by Local Authorities to introduce their own. In September 1919 and in March 1920 Miss Elizabeth McMichael, one of the Department's housing inspectors, surveyed the accommodation given on farms

across Scotland to see what improvements could be made and what standard should be set in the byelaws.[50] She found that as the best accommodation consisted of specially erected huts, including old army huts, erected away from the main farm steading, the general standard could be improved by placing pressure on farmers to erect these buildings. McMichael's views were shared by other inspectors from other local SBH offices.[51] Although considered as one of the best methods for housing the workers, there was a number of problems in using it. Merchants did not always buy crops from the same farmers each year. If they did, it was unlikely that farmers would group together to provide the special accommodation. All the central hutting which was used was supplied by merchants, such as Stevenson of Stirling, and the two merchants Paul and Weir and Wotherspoon and Donald of Glasgow. Usually it was located on their own farms. Inspectors thought that transporting the workers to the fields each day was problematic; the Glasgow merchants W. and A. Graham had already abandoned one set of premises at Auchterarder because of that problem. They were also concerned that the different squads would fight. Additionally, if the workers were rained off they could not get shelter or a change of clothing as easily and quickly as they could if they were accommodated at the farm steading where they were employed. It was thus generally thought to be impracticable to extend the use of the central accommodation.

The presence of specially erected huts indicates to McMichael that in some places a higher standard of accommodation was being given. It was therefore important that

where workers were housed in farm buildings and cottages the accommodation should be improved and be of a higher standard.

Under the byelaws the farmer was responsible for providing the structure of the accommodation and a number of facilities. Each building used was to be "water-tight and free from damp" and to have dry floors which could be easily cleaned.[52] It was to be "thoroughly" cleaned out and the walls were to be lime-washed "at least once" each year before the workers arrived. Accommodation was to consist of a living room and sleeping apartments. The sleeping apartments had to be "sufficient" for the separate use of each sex; workers of different sexes could not occupy the same sleeping apartment except where there was suitable separate accommodation provided for married couples. Locks had to be fixed onto the door of each room used by female workers, so that they could be securely fastened from within the room.

The farmer had to provide a number of facilities "to the satisfaction of the Local Authority." Each apartment had to be fitted with an adequate means of lighting and ventilation. Each sleeping apartment had to be supplied with a sufficient supply of "clean" straw or other suitable material and bedsteads or similar structures which allowed a space of "not less than nine inches" between the bedding and the floor. Sufficient storage for food had to be provided in a place outwith the sleeping apartment. Tables and seats had to be given, facilities for personal ablution and for the washing and drying of clothes, and "adequate" cooking facilities "under cover." "Suitable and sufficient" sanitary conveniences had to be installed at the rate of one for every

twenty persons and be situated 100 feet apart for the separate use of each sex. Receptacles for refuse had to be given, as did a "proper supply of wholesome water."

A number of responsibilities was given to the employer or merchant. He was not allowed to permit more than the agreed number of workers to sleep in a sleeping apartment; each worker had to have 300 cubic feet of space. Like the farmer, he also had to undertake certain tasks "to the satisfaction of the Local Authority." These included "thoroughly" sweeping out the floors of each apartment each day, cleaning them every week, and keeping the buildings in a clean and tidy state. If blankets were not supplied by the workers, he had to provide a "sufficient" number for each person; he had to ensure that they were kept in a "clean condition." He was also charged with maintaining the sanitary facilities and in emptying the refuse containers each day so that they would not cause a "nuisance."

The drafting and adoption of byelaws made under Section 45 was a slow process. By December 1920 a model set, which was primarily applicable to the conditions found in Ayrshire, was framed by the SBH, which could be modified, if necessary, to suit the local circumstances of that area.[53] The byelaws also covered "other matters" which would further improve the standard of accommodation.[54] Byelaws could include that intimation be given to a Local Authority of any particulars about the premises to be used for accommodating workers, including the arrangements for keeping them clean, and for the disposal of rubbish. Also, for the arrangements to be made by the workers' employer for complying with the byelaws.

On 22 December 1920 the SBH issued a copy of the byelaws to all landward Local Authorities where potato workers were accommodated and enquired whether they had considered the question of framing byelaws under Section 45.[55] However, the first byelaws were not confirmed until March 1921. Table 12.1 shows that by the December 1921 they were in operation in a total of nine District areas in five Authority areas. In East Lothian they were not adopted until 1922 when they were also confirmed in a further nine areas; and in West Lothian not until 1923; others were not confirmed until later years. Those of the Calder District of Midlothian and Edinburgh were not confirmed until 1925. When byelaws were adopted they were not often in operation until after the potato harvest started; others were not confirmed until it was completed.

TABLE 12.1. DATES WHEN BYELAWS WERE ADOPTED UNDER SECTION 45 OF THE HOUSING, TOWN PLANNING, ETC. (SCOTLAND) ACT, 1919

County	District	Date When Confirmed
Ayrshire	Northern District	26.3.21
Ayrshire	Carrick District	3.5.21
Ayrshire	Ayr District	28.3.21
Ayrshire	Kilmarnock District	13.5.21
Lanarkshire	Upper Ward District	2.7.21
Lanarkshire	Middle Ward District	18.10.21
Lanarkshire	Lower Ward District	9.5.24
Fife	Kirkcaldy District	8.9.21
Angus	Dundee District	14.12.21
Renfrewshire	Lower District	17.2.22
Renfrewshire	Upper District	17.8.23
East Lothian	Western District	21.2.22
East Lothian	Eastern District	31.8.22
Stirlingshire	Eastern District	6.4.22
Stirlingshire	Central District	13.4.22
Stirlingshire	Western District	16.3.23
Dumbartonshire	Eastern District	28.6.22
Dumbartonshire	Western District	28.6.22
Perthshire	Eastern District	26.10.22
Perthshire	Central District	7.12.22
Perthshire	Perth District	5.1.23
Perthshire	Highland District	19.1.23
Perthshire	Western District	5.2.23
West Lothian	Bathgate District	25.11.23
West Lothian	Linlithgow District	25.11.23
Midlothian	Calder District	9. 9.25
Edinburgh	-	26.6.25
Dundee Burgh	-	22.6.21
Ardrossan Burgh	-	15.10.23

Source: NAD, AGI 2661 1926, letter of 28 November 1924; SRO, DD13/1591, number xiii; DD13/1603, number xxix; DD13/1625, number lv.

Although byelaws were adopted for all areas of East Lothian and West Lothian, in Midlothian they were only adopted in the Edinburgh District and in only one of the four county areas, the Calder District. Although the byelaws were among the last to be adopted, attempts were made as early as January 1921 to adopt them.[56] Although it was known that workers were accommodated in all areas, neither the Gala Water District Committee, the Lasswade District Committee, Midlothian County Council or Edinburgh District Committee thought that there were sufficient numbers of workers in their areas to warrant the adoption of byelaws.[57] As the Calder District Committee minutes do not survive at that time, it is not known what decision was taken.

In an attempt to show the Committees that byelaws should be adopted, Miss McMichael undertook inspections at five farms in the Edinburgh District and seven in the Calder District, to indicate the standard of accommodation provided.[58] Although she notes that some farmers were installing army huts to improve the accommodation, there were instances where it was "distinctly bad" and "not as satisfactory as it ought to be."[59] Her reports recommend that the only way conditions could be improved was by the adoption of byelaws. In an attempt to impress on the Committees the need to adopt them, and to improve conditions, the SBH sent copies of the reports to the Town Clerk at Edinburgh and to the Calder District Committee.[60] In addition, after Joseph Duncan, Secretary of the Scottish Farm Servants' Union (SFSU), visited accommodation in the Edinburgh area, on hearing

complaints about it, he sent a report to the Sanitary Inspector for the Suburban District of Edinburgh in an effort to get improvements made.[61] As a result, the Edinburgh District Committee and the Edinburgh Committee did decide to adopt byelaws.

Both Committees decided to discuss the matter together so that a uniform set of byelaws could be introduced in the two areas, and held their first joint meeting on 31 October 1921. As they thought some of the byelaws were unworkable, they altered them.[62] However, as a number of clauses which were considered to be of the "utmost importance" were omitted, the Health Board would not confirm them as they considered them to be inadequate.[63] As neither took steps to revise the byelaws, McMichael undertook further surveys of the accommodation and the Secretary of the SBH sent letters to each Committee to get them to adopt byelaws.[64] As neither Committee agreed to all the amendments, there continued to be a delay in adopting the byelaws.[65] During the summer of 1924 McMichael undertook further surveys of the accommodation to try to get them to take further steps to adopt byelaws.[66] However, although the Committees amended most of the clauses by October 1924, the SBH wished to see further clauses introduced.[67] As a result of a fire tragedy at Kilnford Farm, Dundonald, Ayrshire, on 22 September 1924, which claimed the lives of nine workers employed by the Scottish Co-operative Wholesale Society in Glasgow, it was thought necessary to introduce several of the recommendations made by the Fatal Accident Inquiry.[68]

The Department wanted the Committees to adopt the jury's recommendations that precautions should be taken against fire and provision made to facilitate the escape of workers in the event of its outbreak.[69] However, when the Committees discussed them, they would not include them all in the byelaws. This applied to the clause which allowed the straw to be placed inside some type of "container," so that it did not form as high a risk of fire, as they believed that they would "immediately get into a filthy condition and have to be destroyed after each lot of seasonal workers has left a farm."[70] Although the Department regretted that they would not include the clause, the byelaws were confirmed without including it. Although they were identical in both areas, they were confirmed on different dates.[71]

STANDARD OF ACCOMMODATION IN MIDLOTHIAN DURING THE MID 1920S

As no byelaws were in operation in many of the Districts in Midlothian during the early 1920s, the standard of housing provided was often lower than that provided in other areas where they operated during that time. As Miss McMichael comments in 1924, the general standard did not come up to the "average" given in other areas.[72] In particular, very few sanitary facilities were provided. Where they were given, usually only one privy was shared by the members of a squad on a farm. At some farms such as South Gyle and Roddinglaw, Ingliston, Freelands and Gogargreen, no facilities were provided at all.[73] As in earlier reports, she states that if they were provided, the workers would

not use them. Many of the squads also kept the accommodation in a very dirty state. At Easter Currie the privy required to be cleaned out and its surroundings were left in an untidy state; at Rosebank, Malcolmstone and Roddinglaw "all the apartments were left very dirty with pieces of food lying about"; at Norton Mains it was generally kept in an untidy state; only at South Gyle was it "tidy."[74]

Although McMichael notes how the accommodation given in the Calder District during 1922 and 1923 had altered little from previous years, improvements were carried out in the District as in the Edinburgh District.[75] By 1924 a number of huts, which included re-erected Army huts, were found at East Hermiston, Gogar Bank, Ingliston and Roddinglaw in the Calder District and at Corstorphine Bank, Corstorphine Mains, Sighthill, Braehead, West Craigs, North Gyle, Cramond Bridge and West Craigie in the Edinburgh District.[76] Many of them provided satisfactory accommodation, and at Roddinglaw formed "excellent accommodation." Some farmers also started to install sanitary facilities, though they were not found on all farms.[77]

Although improvements were made at some farms, they were not always satisfactory. In 1922 McMichael notes that:

> Farmers [were] having additions and alterations made in anticipation of the obligations to be laid on them under the Byelaws, and it is imperative that they should know exactly what is required before incurring further expense.[78]

Although huts were erected to improve the accommodation, not all were large enough. Overcrowding was reported at some. At Roddinglaw, the hut was only large enough to provide sleeping accommodation for some of the members of the squad; others had to sleep in additional buildings; such was also the case at Gogar Bank, and Ingliston.[79] Nevertheless, it was a satisfactory arrangement for providing separate sleeping quarters for each sex.

The introduction of byelaws led to a considerable improvement in the standard of accommodation in Midlothian. During the first year of their operation in both the Edinburgh and Calder Districts, there was a "marked improvement" in the accommodation given, and in the manner in which it was maintained.[80] In the Calder District improvements included the erection of specially built brick buildings on two farms, which were said to be of "an ideal standard."[81] They were detached from the main farm buildings, and comprised separate sleeping accommodation for each sex, a large central dining room, and a large scullery or kitchen which were all well lighted and had ample ventilation. There was a hot plate for cooking, sink and water supply, washing and water closet accommodation for each sex, accommodation for the storage of food, and facilities for drying clothing.

In the Edinburgh District most farmers provided accommodation to the standard of the byelaws.[82] Indeed, many of the huts used - like those at Broomhouse, North Gyle, and Bonaly - were very satisfactory, and had "much to commend them."[83] However, on some farms the accommodation was not as

satisfactory. At Meadowfield and Braehead they were badly planned and had insufficient lighting.[84] Like some of the farms in the Calder District, further improvements could still be made to the accommodation.[85] In the Calder District, where there were fewer huts, the Sanitary Inspector was of the opinion that the "majority" of the premises required "considerable" alteration before they would meet the requirements of the byelaws.[86]

Although there was an improvement in the accommodation provided, there continued to be many complaints about the way the workers kept it. Despite the fact that some squads kept their accommodation clean and tidy, a large number of reports was made where workers misused the accommodation or kept it in a dirty and untidy state; a fact also noted in other counties, and before byelaws were introduced.[87] At seven of thirteen farms inspected in the Edinburgh District in October 1927 McMichael and Stuart, the Sanitary Inspector for the Edinburgh District, took exception to the lack of cleanliness of the accommodation.[88] Even where girls were appointed to tidy up the premises, the accommodation was found in an untidy state, as at Braehead and Sighthill.[89]

In both districts the Sanitary Inspectors continued to enforce a "steady pressure" on farmers to secure necessary improvements each year.[90] Additionally, in the Edinburgh District farmers were also advised to submit plans to the Sanitary Department if they wished to erect additional huts so they could be advised of the best possible way to plan their accommodation.[91] Additionally, the SBH placed pressure on the Sanitary Inspectors to inspect the accommodation; if defects were

found the inspector had to ensure that the farmers carried out alterations.[92]

These steps secured additional improvements. By 1930 the defects reported in the Calder District were "all of a minor nature."[93] In the following year, a report undertaken by McMichael notes that "much had been achieved by the officials in the past," and that any further improvements could be carried out gradually.[94]

FURTHER LEGISLATION IN 1925 AND 1931

In 1925 Section 45 of the Housing, Town Planning etc. (Scotland) Act, 1919 was repealed by Section 83 of the Housing (Scotland) Act, 1925.[95] Like the earlier section, it also dealt with the housing given to a number of types of seasonal workers, which included the potato workers. There were few differences between the two Sections. The clauses which dealt with the application of certain provisions as to byelaws were now inserted into a second section, Section 84. The wording of the clauses was virtually identical. However, under Section 83, the byelaws now had to determine who was responsible for regulating the use of the accommodation by the workers, which was reported in the SBH circular of 22 December 1920, and adopted in some byelaws.

The only District Committee in Midlothian which made byelaws under Section 83 was Lasswade, which had previously thought it unnecessary to do so when the matter arose in January 1921, and in November 1924.[96] By November 1928, byelaws

similar to those which operated in Edinburgh and the Calder Districts were confirmed.[97]

Further legislation was introduced in the "Seasonal Workers' Accommodation Byelaws (Scotland) Regulations, 1931," made under Section 83.[98] This was partly the result of recommendations made by a number of Local Authorities such as Edinburgh, Midlothian, Ayrshire and Perthshire of ways to improve the accommodation and of the tragedy at Kilnford in September 1924, which had influenced the byelaws made in the Calder District and Edinburgh District of Midlothian during 1925.[99]

Under the Regulations further clauses were introduced which would raise the standard of the accommodation. The Regulations had to determine who was responsible for regulating the use by the workers of the accommodation. They were to make provision for the arrangements which were to be made by an employer who was not himself supervising the accommodation, for appointing a person who would see that the byelaws which were incumbent on him were carried out. This was particularly important for keeping the accommodation clean and tidy. Records were to be kept by the employer of the workers who used the accommodation.

For the first time regulations were introduced which gave workers protection against fire and provided for the provision of suitable emergency exits. James Handley considers them to be the "most important" of the new regulations.[100] Farmers had to provide lamps or lanterns fitted with non-breakable fuel containers which were to be fixed to the walls, rafters or ceiling and fire fighting appliances which comprised two pails, marked

with the word "fire," one of which was filled with sand, the other with water. There had to be "suitable" emergency exits from each sleeping apartment in case of an outbreak of fire. Employers were not to allow any worker to use a candle or other naked light in any sleeping apartment, or permit loose straw or other readily inflammable material to be kept in any sleeping apartment. They were responsible for ensuring that the fire-extinguishers were placed in accessible positions, and were ready for "immediate use" when the accommodation was occupied. When the workers were accommodated, the employer had to "take steps" to ensure that all the emergency exits were maintained in efficient working order and were kept free from obstructions.

In a number of counties, byelaws were revised to include the additional provisions. By this time the District Committees were replaced by the larger administrative unit of the County Council or the Town Council, under the Local Government (Scotland) Act, 1929, and byelaws were adopted over a larger geographical area.[101] As the Department of Agriculture for Scotland (DAS) did not issue their model byelaws until August 1932, the first were not confirmed until the following year.[102] In Edinburgh, they were not confirmed until 22 March 1933, and in Midlothian until 13 June 1934.[103] Other County Councils such as Ayrshire, Dumbartonshire, Fife, Perthshire, Renfrewshire and Stirlingshire also adopted them.[104]

East Lothian, like West Lothian, Dundee, Ardrossan, Angus or Lanarkshire, did not revise their byelaws.[105] In East Lothian the County Council did not think it necessary and instead, instructed the Sanitary Inspector to arrange with farmers to

provide for the various matters provided for in the Department's byelaws.[106]

THE TRAGEDY AT KIRKINTILLOCH AND RESULTING LEGISLATION

Further changes were made in the housing legislation as a result of the tragedy at 67 East Side, East High Street, Kirkintilloch, Dumbartonshire. In the early hours of 16 September 1937 ten male potato workers, aged between 13 and 23 years, from Achill Island, Co. Mayo, were overcome by carbon monoxide fumes and asphyxia from an overloaded hot plate in the shed where they were sleeping (Appendix 10).[107] Although the apartment was subsequently gutted by fire, all the fourteen women who were sleeping in an adjoining cottage and the squad's gaffer and his son managed to escape.

A Fatal Accident Inquiry held at Dumbarton Sheriff Court on 18 October highlights the fact that there were a number of inadequacies in the legislation which regulated potato workers and other types of seasonal workers defined under Section 83 of the Housing (Scotland) Act, 1925.[108] The accommodation at East Side was provided by W. and A. Graham, potato merchants in Glasgow; byelaws under Section 83 only regulated that provided by a farmer, or the landlord, if he was required to erect it. It had also been situated within the burgh of Kirkintilloch; the byelaws only regulated accommodation given on farms. While there were byelaws in operation in the county area of Dumbartonshire from August 1933, none were made for the burgh of Kirkintilloch.[109]

They did not take into account the situation which could arise where workers were accommodated in one area and transported each day to another to work. The accommodation itself also highlighted the fact that further improvements could be made to the byelaws. In particular, additional clauses could be introduced to protect workers from fire. As at the Kilnford Fatal Accident Inquiry, a number of recommendations were made to improve the accommodation as a result of the tragedy at Kirkintilloch.[110] They advised that all accommodation for seasonal workers should be inspected and passed as safe and proper by the official of a Local Authority; this would be achieved by stepping up work already being carried out by the Sanitary Inspectors who already inspected accommodation before workers arrived.[111]

Many of the findings of the Fatal Accident Inquiry were included in Section 19 of the Housing (Agricultural Population) (Scotland) Bill, which was being drafted at the time of the tragedy, and which received its royal assent on 13 July 1938.[112] It was influenced by Section 18 which dealt with the making of byelaws for "bothies, chaumers and other similar premises which are not part of a farm house," inserted as a result of recommendations made by the Scottish Housing Advisory Committee.[113]

Under Section 19 all Local Authorities which had not adopted byelaws for seasonal workers had to make them unless they could show "to the satisfaction of the DHS" that they were unnecessary. If they failed to do so then the DHS had the power to make and confirm them "as if they had been made by the local authority." Like Section 18, they had to be made within six months of the passing of the Bill, or within such a longer period as

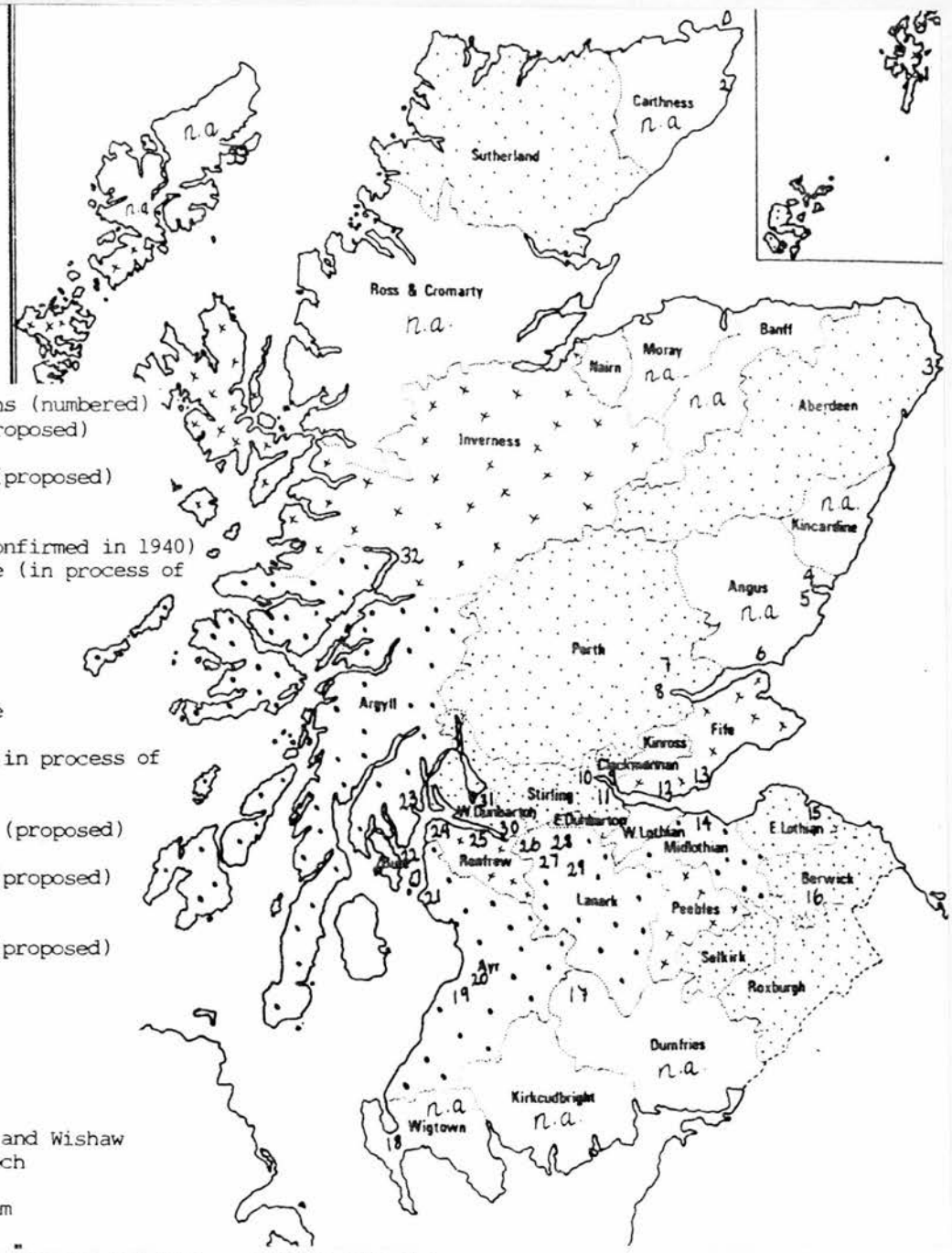
the Department allowed. They embodied the findings of the Scottish Housing Advisory Committee, rather than the serious nature of the tragedy at Kirkintilloch.[114] The Section also amended the clause in Section 83 which dealt with the person responsible for providing the accommodation. This was redefined so that byelaws now applied to accommodation not only situated on farms. Like Section 83, farmers or fruit growers could still require the landlord to erect additional buildings to be used for accommodation "on terms and conditions to be determined, failing agreement, by the Department of Agriculture for Scotland."

ADOPTION OF LEGISLATION UNDER SECTION 19 OF THE HOUSING (AGRICULTURAL POPULATION) (SCOTLAND) ACT, 1938

Both Midlothian and East Lothian County Councils revised their byelaws under Section 19.[115] However, like many Authorities, they had not adopted them within six months of the passing of the Act, and they applied for an extension of the period within which they had to be made.[116] While they were in operation in East Lothian by the outbreak of the Second World War, in Midlothian, they were not confirmed until 1940.[117]

In comparison to other County Councils such as Ayrshire, Dumbartonshire and Lanarkshire which adopted byelaws, very few Burgh Councils in the Lothians did so. Fig. 12.1 shows that there were only two in the Lothians: Edinburgh and Dunbar.[118]

FIG. 12. 1. LOCAL AUTHORITIES WHICH ADOPTED BYELAWS UNDER SECTION 19 OF THE HOUSING (AGRICULTURAL POPULATION) (SCOTLAND) ACT, 1938. POSITION AT THE OUTBREAK OF THE SECOND WORLD WAR



Key to burghs (numbered)

1. Lerwick (proposed)
2. Wick
3. Peterhead (proposed)
4. Brechin
5. Montrose
6. Dundee (confirmed in 1940)
7. Blairgowrie (in process of adopting
8. Perth
9. Alloa
10. Stirling
11. Falkirk
12. Dunfermline
13. Kirkcaldy
14. Edinburgh (in process of adopting)
15. Dunbar
16. Coldstream (proposed)
17. Sanquhar
18. Stranraer (proposed)
19. Maybole
20. Kilmarnock
21. Ardrossan (proposed)
22. Rothesay
23. Dunoon
24. Greenock
25. Renfrew
26. Glasgow
27. Coatbridge
28. Airdrie
29. Motherwell and Wishaw
30. Kirkintilloch
31. Milngavie
32. Fort William
33. Stornoway

Source: SRO DD13/1593 to DD13/1647.

∴ Authorities where byelaws were in operation by the outbreak of the Second World War.

• • Authorities which adopted Byelaws during the war.

× × Authorities which proposed to adopt Byelaws.

n.a. No information available.

☐ No Byelaws made.

Although Edinburgh had already adopted byelaws in 1925 and 1933, Dunbar adopted them for the first time in 1939. Unlike many Burgh Councils which adopted byelaws where it was unlikely that potato workers or other types of seasonal workers would be accommodated, there is evidence to show that they were accommodated within the Burgh Council areas of Dunbar and Edinburgh.[119] In Dunbar during 1938, the Town Clerk reports that workers found lodgings in the local lodging house and at East Barns Farm.[120] Edinburgh continued to be an important centre for accommodating the workers and in 1937 and in 1938 they were accommodated on twelve farms.[121] Usually where they were accommodated in burghs only one or two sets of premises were used, as at Ardrossan, Ayr, Dundee, Perth, St. Andrews and Kirkintilloch.[122] By 1972 the only potato workers accommodated in burghs were found in Edinburgh and at Ardrossan, at Chapelhill Farm.[123]

THE STANDARD OF ACCOMMODATION GIVEN TO WORKERS UNDER SECTION 19 OF THE HOUSING (AGRICULTURAL POPULATION) (SCOTLAND) ACT, 1938

Under Section 19 new model byelaws were issued by the DHS on 13 July 1938, the same day as the Bill received its royal assent.[124] They were not the same as those of Section 18 which prescribed a different standard of accommodation, and which Handley considers applied to the migratory potato workers.[125] Additionally, there was also a number of differences between the byelaws made under Section 19 and those made under either

Section 45 or Section 83.[126] They were altered in scope and applied to all types of seasonal workers defined under Section 83 of the 1925 Act - the workers employed on farms or fruit farms, herring gutters and navvies. No longer could Authorities such as Edinburgh, Midlothian, Fife and Renfrewshire include a clause which allowed the byelaws to be waived where less than a stated number of workers of the same sex were accommodated on a farm.[127]

The layout was also altered so that similar requirements were grouped under the appropriate headings of "the person responsible" for providing the accommodation and "the employer." Although "the nature and extent" of the accommodation was essentially the same as that provided in the 1925 Act and 1931 Regulations, the standard given was actually higher. The clauses were more precise in their nature, envisaging an exact standard. For example, although workers were each to have 300 cubic feet per person, the calculation of the cubic space allocated to them was altered so that nothing over ten feet was to be taken into account; previously it was 12 feet. The byelaws which related to lighting the building were more specific. Windows were to open to the extent of one third of their area or not less than three square feet, "whichever is greater." Where buildings were to be occupied for more than forty-two consecutive days the total glass in the windows of each apartment was to be not less than one-tenth of the floor area of the apartment; where it was occupied for fewer days this figure was one-twentieth. Tables and seats were to be given at the rate of two lineal foot to each worker. The area given for the storage of workers' food had to be sufficient to allow one

cubic feet of space for each worker. Tubs or sinks were to be given at the rate of one to ten workers. Facilities for drying clothes were to be given in a building outwith the sleeping accommodation and had to include a clothes-line or other suitable means for drying clothes. If necessary, a Local Authority could ask for means to provide heating for drying them. Water closets or privies were to be given for the separate use of each sex at the rate of one to not more than twenty workers and were to be at a distance from one another approved by the Local Authority. They were to be marked with the words "men" and "women." A sufficient supply of water was required to allow workers to drink, cook, and wash.

The merchant's functions were also more detailed. For example, he had to ensure that loose straw or other loose inflammable material was not kept in sleeping apartments or in sheds or other buildings used for cooking and drying clothes. Blankets were to weigh not less than five pounds per pair. Water closets and privies had to be kept in a clean state and their contents were to be covered each day.

Only one new provision was introduced into the new byelaws as a result of the tragedy at Kirkintilloch. This dealt with prevention of fire. Employers were to ensure that "all lights, fires, and other means of heating within the building" were extinguished not later than a stated hour each night (usually 10pm or 11pm) "or were left in a safe condition."

The DHS wanted the Local Authorities to adhere as closely as possible to the model byelaws unless they had special need to deviate.[128] Indeed, correspondence between the DHS and a

number of Authorities suggests that the Department discouraged authorities from making any alterations. Fishing burghs such as Wick, Peterhead and Stornoway made significant alterations, but these were to suit the requirements of herring gutters.[129] Few others made many.[130] In Midlothian, the County Council made two alterations. It retained the method for calculating the amount of space given to each worker made in their byelaws issued in 1934. They simplified the byelaw which related to the amount of window space so that the same amount was to be given in all premises regardless of the amount of time the workers stayed there.[131] In East Lothian the County Council had altered them to allow for a boiler to be installed in each set of premises to heat water and where stairways were to be used by more than fifteen people, the person responsible for providing the accommodation was to ensure an approach by a door which opened outwards from the apartment on to a proper landing. All means of access were to be of substantial construction. Many Authorities, which included Edinburgh and Dunbar simply adopted the model byelaws without alteration.[132]

Byelaws made under Section 19 continued to operate in Midlothian, East Lothian and many other counties and burghs until they were amended by Section 171 of the Housing (Scotland) Act, 1966.[133] West Lothian, which had not adopted any under Section 19, introduced new ones to replace those made in 1923, when Section 19 was repealed by Section 148 of the Housing (Scotland) Act, 1950.[134] These were later replaced by byelaws made under the 1966 Act.[135]

After 1938 there were a number of changes in the accommodation given to potato workers in the Lothians. With the increased use of the ganging system in south-east Scotland and the Lothians during the 1930s there was an increase in the use of disused farm cottages for the housing of potato workers and other seasonal workers, so that it became common to house workers in them.[136] Their use continued and in the late 1940s a number of farmers and contractors at Papple (Whittinghame), Spittalrig and Macmerry made alterations to disused farm cottages for this purpose - a trend which was to continue.[137] Oral recollections suggest that in many instances, cottage accommodation was provided, as at Smeaton, Adam Brae and D'Arcy.[138] By 1971 in East Lothian cottage accommodation was almost exclusively used at the nine farms where workers were accommodated.[139] Reports show that dwelling houses were also used in Midlothian.[140] Special accommodation was erected at Swanston Farm in part of the steading.[141] At other farms such as Craigielaw and Aberlady Mains it was provided in purpose built buildings located away from the steading.[142] Some of the existing farm buildings were modernised and converted.[143] Part of the accommodation comprised potato sheds, turnip sheds, as at Freelands, Ratho, and barns, as at Carberry Mains and other farms.[144] Unlike the accommodation in Ayrshire, byres did not appear to have been used, or ex-RAF huts, like those at Turnberry.[145]

James Gibson, Sanitary Inspector for East Lothian, was of the opinion that the method of housing workers on farms was an old

fashioned system.[146] Like McMichael, and a number of sanitary inspectors including George Anderson of Midlothian, George Greenlaw of Ayrshire, Alex Merrilees of Wigtownshire, he suggests that centrally located huts should be built for the workers, so the accommodation would be of a more "substantial nature" and the workers would take better care of it.[147] However, during the period, accommodation on some farms was used as a central base, and workers were transported daily to other farms in the area.[148] At Smeaton, for example, workers were employed at that farm for harvesting the first earlies, then went on to Dolphingstone, Myles, Tranent Mains and then worked onto higher land as the crops ripened and were ready to dig. At Aberlady Mains, workers were employed on other local farms after the crop had been harvested there.[149] The practice appeared to become more common towards the 1970s, when a higher standard of accommodation was demanded.[150]

CHARACTER OF THE ACCOMMODATION

Oral recordings from farmers and potato merchants show that they tried to provide good accommodation for the workers. John Harvie of the potato merchant James Fulton Junior notes how "we tried to keep a high standard." A similar comment is made by David Scobie of the potato merchant Gilbert McClung of Edinburgh: "we did our best to make sure that they lived in decent accommodation" and were also "comfortable and clean." At Galbraith and Roy "the bothies we had were better than average.

They were certainly not lower than the sanitary standard." At Freelands "there was nothing wrong with the accommodation, it was quite good."[151]

However, the workers maintained their accommodation in varying conditions. At most farms the accommodation was kept "in a satisfactory condition."[152] At Freelands "the squads were clean;" "they kept the place very clean."[153] However, at some farms it was not well maintained and looked after. In Midlothian during 1967 "the standard of cleanliness in these places during occupation is not all that one would desire, although the occupants seem perfectly happy."[154] Similar statements were made in other counties such as Ayrshire.[155] Some merchants found that it was difficult to control the actions of the workers in using the accommodation, even though they took steps to inspect it.[156] At Chalkieside during the late 1960s, one of the workers who had come home after drinking tried to light the gas cooker, fell asleep, and then lit a match; not only did he destroy the accommodation but he also lost his life.[157] In other areas, such as Ayrshire, the accommodation, particularly the sanitary facilities, was ill-treated.[158] Workers also stole the fire pails or put them to other uses such as "boiling utensils" and makeshift lavatories.[159]

Even though a housekeeper or cook was appointed, merchants also took steps to check that the workers looked after the accommodation.[160] For example, John Harvie went around the bothies each week to ensure that they were tidy:

> I had an inspection at least once a week. The woman that looked after the kitchen and the quarters. You know, I would go round and

> inspect them and just see that everything was tidy and if she needed anything she asked me, if she needed a plumber she asked me, things like that. ... I went round them regular. ... I mean, I walked round and if there was empty lemonade bottles I would tell them get them picked up. I would tell them, 'Get them picked up and tidied up.' We had rubbish bins to put the stuff in. ... Some farms I went to had big heaps where they flung all their empty beer bottles - they had no cans in these days. But all their whisky bottles were just thrown all over the place, baked bean cans and stuff like that. But there wasn't a lot of that, they were very frugal; they came across to make money.[161]

The Sanitary Inspector also visited the accommodation when the workers were housed; he also saw the state in which it was maintained.[162]

Sanitary Inspectors' reports show that the accommodation was largely kept to the standard of the byelaws. Where there were contraventions, they were mainly of a minor nature and could easily be remedied.[163] Very few prosecutions were instituted in the Lothians during this period or in others.[164] One, however, was instituted in West Lothian during 1957 where the farmer would not co-operate in making improvements to the accommodation. In other counties, such as Ayrshire, prosecutions were also instituted.[165]

Although O'Dowd states that "it is unlikely that the accommodation and conditions given to seasonal agricultural workers, as distinct from the settled agricultural workers, improved a great deal" there is much evidence in the Lothians and in other counties to suggest that it did improve during the period 1938 to 1970.[166] I have noted that there was a more precise standard asked for in the byelaws made under Section 19. In East Lothian in 1939, McMichael notes that the accommodation given in the county was "of a very high standard."[167] A survey of eight farms - Seton, Tranent Mains, Seton Mains, Craigielaw, Luffness Mains, Aberlady Mains, Ferrygate and West Fortune - shows that accommodation was "very good" at each of these farms, and indeed "much of it [was] excellent." New buildings were erected at Craigielaw and at Ferrygate a potato shed was used as a sleeping apartment for the women. Emergency exits were to be found in all sleeping apartments, either by the use of windows, doors or gangways and stairs; fire fighting appliances were provided at all farms but two, Tranent Mains and Seton Mains, where they had been removed by the workers. The cooking arrangements were also "satisfactory" and consisted of hot plates, or large in-built fires; an "ample" number of food cupboards was also provided. "Great progress" had also been made with accommodation for ablutions and sheds fitted with sinks with hot and cold water. The sanitary facilities were also satisfactory. Water closets were found at Seton Mains and Craigielaw and were kept "reasonably clean." Indeed, much progress had been made in improving the standard

given as a result of close collaboration between the Sanitary Department and the farmers. This continued to be made, and in the late 1940s farmers in the county submitted plans to their Department before erecting new premises or making any alterations to them.[168]

In the early 1950s the Sanitary Inspectors for the counties of Midlothian, Ayrshire, Wigtownshire and Dumfriesshire report that the standard of accommodation had "improved" in recent years.[169] By 1956, the Inspector for Midlothian comments that it was "good."[170] Only in West Lothian, where byelaws from 1933 were still in operation, was it thought that "generally the accommodation ... was not of a sufficiently high standard," and it was therefore recommended that new byelaws should be introduced to improve it.[171]

However, by the early 1960s, a very different view emerged of the accommodation. Housing standards had generally improved and many houses now had electricity, piped water and water closets. By comparison, the byelaws made under the 1938 Act were regarded as "out of date," "obsolete" and left "much to be desired."[172] As a result, the standard of accommodation became less satisfactory. Like the byelaws, many of the facilities which were provided were also out of date. In East Lothian privies, candles and paraffin lighting were found on a number of farms.[173] Gibson shares the view of other Inspectors that improvements should be made to the accommodation so that the workers would "not be left to languish in dingy old bothies with obsolete facilities."[174]

Gibson and other Inspectors from Ayrshire and Wigtownshire took successful steps to improve the accommodation.[175] In 1960 he encouraged farmers to improve their premises by installing water closets to replace the old privies, "and by providing electricity instead of paraffin lamps."[176] In the following year he notes how "most of the [17] farms now have water-closets, and the few who do not, will be encouraged to install them."[177] The standard was comparable with that in other areas.[178] Sanitary Inspectors continued to place pressure on farmers to modernise facilities and make improvements.[179]

While Authorities like East Lothian tried to improve various aspects of the accommodation, in Midlothian steps were taken to improve it generally, as had West Lothian.[180] In 1961, the Sanitary Inspector surveyed the accommodation on all eleven farms where workers were housed in the county to see what improvements could be made.[181] He notes that "the standard prevailing left much to be desired"; on some farms he suggests that the accommodation should not be used until "major improvements" were carried out.[182] Detailed reports of improvements which had to be made in the accommodation were sent to all the farmers concerned. As a result of this, and the increased number of inspections which were carried out by the Department, major improvements were made on six farms, and the standard of accommodation was said to be "greatly improved."[183] However, this resulted in a decline in the number of premises which were used in the county - a fact also implied by O'Dowd, who refers to the Dalkeith area of the county, and which was reported in Dumbartonshire, Renfrewshire and

Wigtownshire.[184] Recollections of farmers and potato merchants reveal that the Sanitary Inspectors became more strict over the years, demanding a higher standard of accommodation. As David Scobie comments "Oh! they were quite strict, aha, aha. Some of them were stricter than others."[185]

Although many improvements were made, Sanitary Inspectors like Gibson felt that further improvements could not be made until new byelaws were introduced which provided for a higher standard of accommodation. One of the first counties to take steps to adopt these in the 1960s was East Lothian.[186] As a result of the poor accommodation at one farm, the Health Committee of the County Council agreed to draft new byelaws to amend those made under Section 19 of the 1938 Act.[187]

Gibson wished to see a number of new provisions inserted in the byelaws which reflected changes in the use of the accommodation and the character of members of some squads. He was particularly concerned at the growing practice of accommodating workers over the winter months in buildings which were neither suitable nor substantial enough for that purpose.[188] He wished to introduce a byelaw which would control the seasonal use of accommodation so that special structures would have to be given to workers who were accommodated outwith the months of May and November.[189] Like the Inspectors in Ayrshire and Wigtownshire, his reports show that he was concerned about the number of workers who brought young children and infants with them to the potato lifting; traditionally none were found on the squads.[190] Gibson was of the opinion that byelaws should control the ages of persons who occupied the

accommodation, and that no child under the age of sixteen should occupy it.[191] However, the Scottish Development Department (SDD) would not allow these, arguing that "there was not enough national demand" to allow for them.[192] Nevertheless, the introduction of the Housing (Scotland) Act, 1966, offered the opportunity to increase the standard of accommodation further.

NEW BYELAWS UNDER THE HOUSING (SCOTLAND) ACT, 1966

The adoption of new byelaws under the Housing (Scotland) Act, 1966 was a protracted process. Although draft byelaws for East Lothian were approved by the Scottish Development Department, the County Council would not approve the final draft.[193] The Scottish National Farmers' Union (SNFU) and the Farm Servants' Section of the Transport and General Workers' Union (TGWU) wished to discuss them before they were finally adopted so that they could get them altered. Gibson regards the move an unnecessary one and a "delaying tactic" as they could express their opinions and make any objections during the period of public consultation before they were formally confirmed by the relevant Government Department.[194] By 1968 they were still not confirmed. The Scottish Home and Health Department (SHHD) had decided to postpone confirming them until Ayr County Council held an enquiry into the subject and published its proposed byelaws so that other counties could bring their byelaws into line with them.[195] East Lothian County council opposed this move, and would not adopt them as it meant that the standard of

accommodation would be lower than that which they wanted. Subject to a number of conditions, new byelaws were confirmed for East Lothian on 11 October 1968; in Midlothian they were also made and confirmed.[196] In most counties they did not come into operation until 1 January 1970. However, in some counties they did not operate until after that date. In Perthshire, it was on 1 January 1971, Renfrewshire, on 25 May 1972 and in West Lothian on 1 January 1974.[197] This period allowed farmers to make any necessary improvements to the accommodation in order to bring it up to the high standard of the byelaws.

Although O'Dowd regards the 1966 Act as "even less progressive" than earlier ones, it was in fact one of the most progressive for regulating the housing of seasonal workers.[198] Although the provisions set out in Section 171 were the same as those for Section 45 of the 1919 Act, which she points out, this was not a measure for the standard to be provided for in the actual byelaws themselves. Rather, they were the aspects of the accommodation which could be regulated. The byelaws adopted under Section 171 set a higher and more precise standard. They regulated sleeping apartments, clothes' storage, natural and artificial lighting, living and dining space, kitchens and kitchen facilities, clothes' drying, waste disposal, refuse disposal, water closets, wash hand basins, baths and fire fighting. They required the introduction of tubs as well as sinks and wash hand basins and baths all with hot and cold water. Water closets were also to be given at a higher ratio of one to ten workers for each sex.[199] Additionally, the accommodation had only to be used for the purpose of accommodating the workers during the year; no

alternative use could be made of it when no workers were accommodated.[200]

IMPROVED STANDARDS: THE LOTHIANS AFTER 1970

For Gibson, the introduction of the byelaws altered greatly the accommodation provided.[201] Father Eugene Derwent, who wrote of his experiences at Aberlady Mains during 1970, comments on the "ample and comfortable accommodation" he lived in and refers to the "bathrooms and toilets" provided.[202] In East Lothian, conditions "were generally good and improvements to meet the new byelaws had been carried out."[203]

However, both O'Dowd and Bell have a very different views of the accommodation given. O'Dowd, referring to a television broadcast made in the Girvan District of Ayrshire, where conditions were different from those in the Lothians, refers to the accommodation "in some areas of Scotland" as "still basically an outhouse which the cattle and Irish workers used alternately."[204] Field evidence from the Lothians does not suggest this was the case here.[205] Jonathan Bell, writing generally of conditions, argues that "primitive living quarters were still being endured by Irish potato harvesters in Scotland in the 1970s."[206] It is very likely that both were influenced by reports in 1971 where the Nevin brothers from Co. Mayo, who acted as labour contractors, did not accommodate workers in "normal accommodation provided by the farmer," and occupied them in buildings without the owner's permission. For Gibson, it was "a new back door method of

collecting the harvest." He hoped that this would soon discontinue and that "more normal conditions should ensue."[207]

THE NATURE OF THE ACCOMMODATION UNDER THE HOUSING (SCOTLAND) ACT, 1966

Because of the increased standard demanded of the byelaws, great changes were made in the accommodation provided for the workers. John Galloway comments how "there was no way that individual farms could put up bothy accommodation the health authorities wanted."[208] David Scobie remarks that as a result, the character of the accommodation altered:

> The bothy accommodation got much scarcer. As I say, nearly every farm we went into tae lift potatoes had a bothy. After that we had to go and find bothies on various farms round about.[209]

As a result the number of premises used to house these workers decreased in most areas during the late 1960s and early 1970s (Table 12.3). Though the decline continued after 1970 in West Lothian, Renfrewshire and Wigtownshire, there was a slight increase in the number of premises used in East Lothian and Ayrshire. In East Lothian this could be explained by the increased number of inspections carried out to find premises used by the Nevin brothers, which had not been notified to the department for accommodating workers.[210]

TABLE 12.3. NUMBER OF PREMISES USED FOR ACCOMMODATING WORKERS IN A NUMBER OF COUNTIES IN SCOTLAND, 1959 TO 1973

Year	WGT	AYR	RNF	DUMB	WLO	MLO	ELO
1959	33	n.a.	7	9	n.a.	n.a.	n.a.
1960	31	77	7	10	n.a.	n.a.	n.a.
1961	26	n.a.	7	8	n.a.	n.a.	n.a.
1962	26	n.a.	5	4	n.a.	n.a.	n.a.
1963	25	n.a.	5	4	n.a.	n.a.	n.a.
1964	26	n.a.	4	n.a.	11	11	n.a.
1965	25	n.a.	4	n.a.	11	10	15
1966	17	n.a.	4	n.a.	10	n.a.	12
1967	17	60	5	0	9	7	13
1968	13	58	6	0	9	4	10
1969	15	47	3	0	9	4	9
1970	14	26	n.a.	n.a.	7	n.a.	6
1971	8	28	2	n.a.	4	n.a.	9
1972	6	21	2	n.a.	3	n.a.	n.a.
1973	n.a.	n.a.	n.a.	n.a.	0	n.a.	n.a.

Source: Sanitary inspector's reports.
Key: WGT Wigtownshire, AYR Ayrshire, RNF Renfrewshire, WLO West Lothian, MLO Midlothian and ELO East Lothian.
n.a.: Figures are not available.

However, as a result of the introduction of the byelaws made under the Housing (Scotland) Act, 1966, the character of the accommodation altered. There was an increasing emphasis on the use of premises as central accommodation, where workers were transported to their work daily. Accommodation usually comprised farm cottages converted for use of the workers; after a number were no longer used for the migrants they were renovated and sold as houses.[211] Accommodation was provided in some such as Whitehill, Temple Mains and D'Arcy throughout the year and workers were employed at the potato harvest, potato dressing and other vegetable work.[212]

Accommodation continued to be provided for Irish potato workers in the Lothians after 1970 and during the 1980s, as at Whitehill Farm and at D'Arcy.[213] In 1995 one bothy remained in the Lothians, at Temple Mains, Dunbar.[214]

CONCLUSION

The condition of the accommodation given to potato workers or potato diggers received much attention in the Lothians and in many other areas during the twentieth century. The work of the SBH, later the DHS, Sanitary Inspectors and other organisations all helped to get byelaws adopted, and secure improvements in the housing conditions. Although the provisions in the various Acts regulating the extent and nature of the accommodation remained the same, including the provision of sleeping accommodation and separation of the sexes and water closets or privies for the separate use of the sexes, the standard of accommodation provided for in the byelaws rose. This was particularly true with the introduction of byelaws made under the Housing (Scotland) Act, 1966.

CHAPTER 13: MECHANISATION OF THE POTATO HARVEST

HISTORICAL

There have been many attempts to mechanise the potato harvest. During the eighteenth century the use of ploughs instead of graips marked the first significant step where large acreages were grown.[1] Developments in plough types and in aspects of their design improved implement efficiency, and allowed for greater work productivity and eased the work of the gatherers. Greater productivity could be achieved through the use of the spinner digger, and in later years, through attempts by implement manufacturers to make it more efficient in separating the potatoes from the soil so that they were better exposed for gathering.[2] By the late 1920s the increased use of the elevator digger brought further steps in more efficient harvesting, as the potatoes were not as widely scattered as those left by the spinner.[3] In the words of W. J. West, "the plough, spinner and elevator digger undoubtedly represent definite steps in mechanising the potato harvest."[4] However, none of these implements reduced materially the large labour force which was required to harvest the crop as many workers had still to gather the potatoes from the ground. All of these could be said to mark the first phase of mechanisation, one which Kumar Sarkar notes in general was "to lighten the work rather than to reduce the labour requirement."[5]

If the potato harvest, like other farm tasks and processes, was to be mechanised, labour requirements had to be reduced so that very few workers were employed. To achieve this, a machine, the complete harvester, had to be developed which would mechanically dig the crop and place the potatoes directly into trailers or other containers to be removed from the field. This machine was not, however, developed until the second half of the twentieth century.

PROBLEMS IN DEVELOPING THE COMPLETE HARVESTER

The task of developing a complete harvester was an immense and formidable one. To harvest one acre of potatoes involved "the handling of 350 tons of material, made up of 240 tons of soil, 80 tons of clods, 19 tons of stones, 10 tons of potatoes and a ton of haulm and weed," or similar quantities of such materials, depending on the type of soil on which the crop was grown.[6] If potatoes were to be successfully harvested they had to be separated from these other materials. However, the process of automatically separating them was difficult as the soil, clods, stones, haulm and weed all had different handling properties. Additionally, the process was made even more difficult by the fact that the crop was grown on varying types of soil which had varying amounts of clod and stone. Differences in soil type also hindered the amount of automatic separation which could be achieved. As a greater volume of stone and clod required more separation to give a clean sample, it was more difficult to achieve

where soils were stony. Thus the amount of crop which could be harvested with a complete harvester was influenced by the character of the soil. In 1949 it was estimated that throughout Britain only a very small proportion of the crop, some 10 to 15%, was grown on soils which had few stones or clods.[7] So great was the problem of separating these materials from the potatoes that its solution was seen as central to the success of the development of mechanical harvesting.[8]

While the separation of potatoes from other materials was a great problem, this process had to be undertaken in such a way that the potatoes would not be damaged. This posed many problems. Damage could vary according to the soil type and soil moisture content. On soils which had a greater content of stone, these were more likely to come in contact with potatoes and damage them, while on lighter ones the soil which cushioned the potatoes easily fell away from them, so they became more susceptible to mechanical damage.

The key to the development of a complete harvester, and thus the mechanisation of the potato harvest, was the manufacture of a machine which would automatically separate potatoes from other materials and damage the potatoes as little as possible. Although much research was done and many attempts were made to develop a machine which would do this, it proved to be very difficult to achieve.

Although many experiments were undertaken during the second half of the twentieth century to find ways of achieving automatic separation of potatoes from other materials, very few were successful. A suggestion was made that new varieties of potatoes should be bred so they could be harvested still attached to the shaws, like pig nuts, and thus be separated from soil when immediately removed from the drill. However, as the breeding of new varieties took a number of years, and would not be immediately available to the general potato grower, the idea was thought to be impracticable.[9] Attempts were made to suspend potatoes, soil and other materials in brine or a suspension of soil in water, so that they could be separated. Although separation was achieved, the idea was a failure as the potatoes rotted during storage.[10] Sloping conveyors, revolving brushes and rollers and a facility to produce blasts of air were also incorporated into designs. As it was still necessary to employ some labour on the harvester the use of these was thought to be only "partially successful" and depended on the workers' skill.[11] Experiments were carried out to separate potatoes electronically by the use of X-rays and other similar means which could differentiate between potatoes and clods and stones, and thus automatically separate them.[12]

Although the idea of using X-rays for field use took many years to develop, it was successfully implemented. However, in terms of complete mechanisation of the potato harvest, it only made a relatively small contribution in Scotland and throughout

Britain. Table 13.1 shows its contribution during the mid 1970s and until 1980.

TABLE 13.1. CROP AREA HARVESTED BY HARVESTERS WITH X-RAY UNITS DURING THE MID 1970S AND 1980

Year	Scotland		England and Wales	
	Hectares	%	Hectares	%
1975-6	n.a.	6	n.a.	3
1977-8	700	2	4000	3
1980	n.a.	6	n.a.	4

Source: Potato Marketing Board, Report on the Survey of Maincrop Potato Production 1975-6 (Cowley: Potato Marketing Board, October 1976) p. 51; Potato Marketing Board, Maincrop Potato Production Techniques in Great Britain 1977-8 (Cowley: Potato Marketing Board, February 1979) p. 56; Potato Marketing Board, "Crop Production Survey 1980," n. pag.
n.a.: not available.
1 hectare = 2.47 acres.

Relatively few X-ray machines were used as they were expensive and also had high maintenance costs and could not be economically used by growers with small acreages.[13] Statistics collected by the Potato Marketing Board show that in 1975-6 the X-ray harvester was only used by growers with over 20 acres of maincrop potatoes. As the acreage of crop increased on farms so did the use of the X-ray harvester. Growers who had over 75 acres lifted 8% of the British maincrop of that size using the machine.[14] However, although their total contribution remained largely unchanged until 1980, their pattern of use had altered. There was a tendency for growers with smaller acreages of maincrop, even with under 5 hectares to use an X-ray harvester.[15] These may have been second-hand machines which were less

expensive to buy than new ones, and were purchased by growers who wanted a machine which could mechanically separate stones, clods and other materials from potatoes.

Although X-ray machines made some contribution to the mechanical harvesting of the potato crop, they could not be used on a wide scale to solve the problem of separating potatoes from stones, clods and other materials, as this was uneconomical. There were other ways in which this problem was solved, and could be used on a wider scale. This was not seen in the development of a suitable harvester but in other methods. During the 1950s there was an increasing awareness that the amount of clod found in drills could be minimised by careful cultivation and soil management, both at planting time and when the crop was being "earthed up." Rotary tillers could be used to produce a fine seed bed, while the movement of tractors between drills could be reduced to a minimum so that soil compaction, and thus the formation of clods, could be reduced. In addition, the development and use of herbicides, such as Gramoxone, a great breakthrough in inter-row cultivation, made it possible to minimise even further the movement of tractors through the crop.[16] While all these helped to minimise clods, they did not solve the problem of the presence of stones in the soil. Although farmers could perhaps try to grow their potatoes on land which had a lower stone content, they could not do this everywhere. Therefore, a solution had to be found. In the United States, farmers who were faced with the same problem had tried to harvest the stones using a "strongly constructed harvester" before the crop was planted.[17] By the late 1960s a modification of this idea was adopted and employed in

Scotland. Further ideas such as windrowing the stones between drills, using stone crushers to break up larger stones, and stone removers which separated stones and placed them in a trailer were used by the mid 1970s to reduce the amount of stone, and additionally, clod, in the soil.[18] Of these methods, stone windrowing, referred to generally as stone and clod separation, was the most successful, and was to provide the key to the problem of mechanically harvesting the potato crop as it allowed potatoes to be planted in drills which had no stone or clod in them.[19]

THE SOLUTION TO HARVESTING ON A LARGE SCALE: STONE AND CLOD SEPARATION

During the process of stone and clod separation the soil from two drills was passed over an elevator web to be sifted (Fig. 13.1). The soil particles fell between the webs while the stones and clods passed up the web and were deposited onto a cross conveyor to be fired into a drill bottom (Fig. 13.2). These lines of stones were then pressed down by tractor tyres and the wheels of the separator when the following two drills were separated (Fig. 13.3).

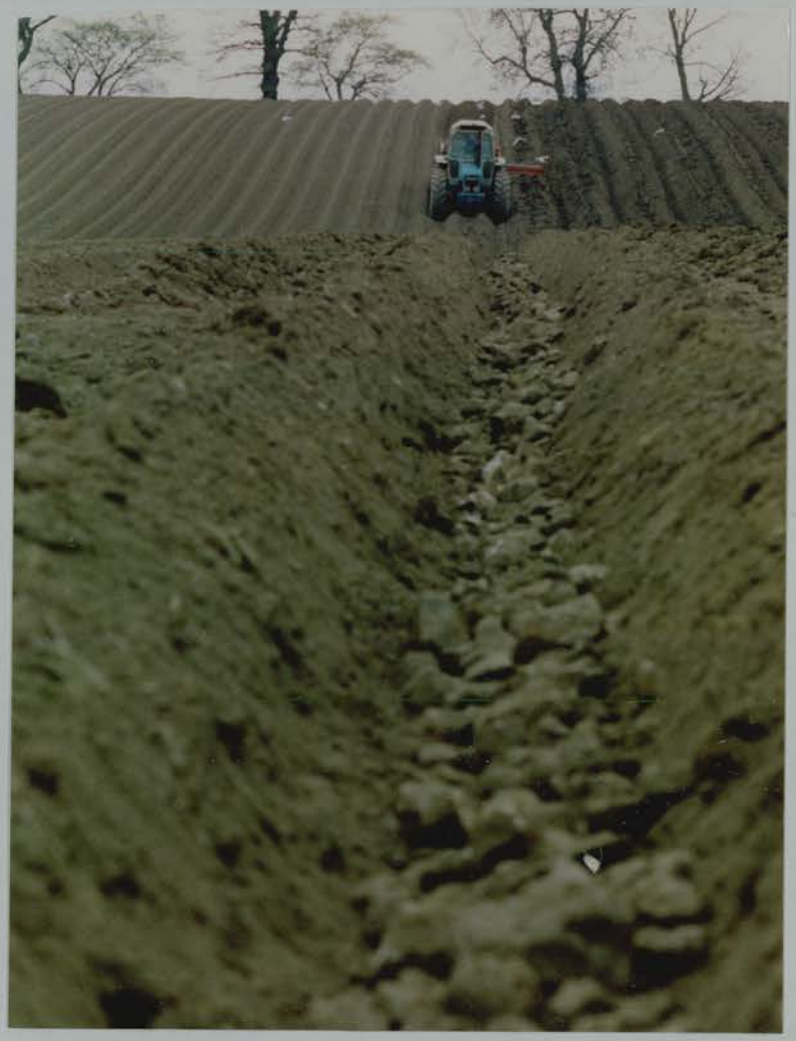
FIG. 13.1. SOIL BEING PASSED UP A STONE AND CLOD SEPARATOR (WINDROWING)

Source: Pilmuir, Balerno, April 1989.

FIG. 13.2. STONES AND CLODS DELIVERED FROM A CROSS CONVEYOR ON THE STONE AND CLOD SEPARATOR INTO THE BOTTOM OF A DRILL

Source: Pilmuir, Balerno, April 1989.

FIG. 13.3. POSITION OF TRACTOR TYRES FOR PRESSING DOWN SEPARATED STONES AND CLODS



Source: Pilmuir, Balerno, April 1990.

The first widespread use of the separation process was in Scotland. By 1977, a survey undertaken by the Potato Marketing Board shows that 21% of the Scottish maincrop was treated in this way; in Great Britain as a whole the figure was only 6%. This figure was also much higher than that found for any potato growing county in England, even where extensive acreages were grown (Table 13.2). Indeed, in some districts of England such as the south-west, no separation techniques were used.

TABLE 13.2. USE OF STONE TREATMENT TECHNIQUES IN BRITAIN DURING THE SEASON 1977 TO 1978

Area / Method used	South West	South East	West Midlands	East Midlands	East Anglia	Yorks & North	Scotland	GB
Stone picking & removal	-	-	-	2%	-	-	15%	3%
Stone windrowers	-	1%	2%	1%	-	2%	5%	2%
Stone crushers	-	-	-	-		-	1%	-
No stone disposal	100%	99%	98%	97%	99%	98%	79%	94%

Source: Potato Marketing Board, Maincrop Potato Production Techniques ... 1977-8, p. 30.

By the mid 1970s when the first machines became available very few manufacturers were involved in their production. By June 1975 there were four in Britain, including one from Scotland, Scorgie of Menmuir, Angus.[20] These were followed by Reekie of Forfar, who was later awarded a silver medal at the Royal Highland Show in 1978.[21] Other companies also tried to develop a machine around this time, including Grimme, the German manufacturer, who in 1975 started to experiment by making modifications to their self-propelled harvester. A specialised machine was later developed and was the forerunner to their Mustang, Colt, and Megastar machines available in the late 1980s and 1990s.[22] By 1993 when stone and clod separation was very widely used there were eight machinery manufacturers and concessionaries supplying them in Britain, including both Reekie, one of the earliest manufacturers, and Grimme.[23] Around this time machines varied in price from around £9,000 to over £23,000 depending on model and size of machine.[24]

The impact of stone and clod separation was great. One writer called it a "revolution" in potato production.[25] Field recordings show that potato growers in the Lothians thought that it made a very great impact on harvesting the potato crop. Andrew Hastie comments how it was "the greatest breakthrough in growing potatoes in this area." James Cleghorn said it is "a must if you are going to work with a potato harvester." David Dandie was very positive about the impact of separation for harvesting: "that was the way to go."[26]

It allowed for widespread use of the complete harvester. As it was so effective it allowed crops to be grown in areas where no harvester could have been successfully used. "Many" growers who used it comment how it "revolutionised the growing of potatoes on stony and cloddy soils."[27] It allowed them to maintain their acreages on these soils, which would have otherwise been difficult to harvest. Indeed, into the 1990s potatoes were grown in areas where they could not be grown in former years because the problem of stones and clods was so great. Separation allowed harvesting to be carried out at a faster rate, giving a greater work output, and making the process more easily carried out, and consequently cheaper. Because the seed bed produced was a very fine one there was less damage to potatoes, and a better quality sample could be produced.

Although stone and clod separation was not widely available until the 1970s, much development had been undertaken to produce a complete harvester to mechanise the potato harvest.

Because of the complex problems involved in developing a complete harvester its development was very slow. Although machines were manufactured and used as early as in 1894, and attempts were made in the 1930s to develop a machine, by the Second World War when there was a great demand for labour for harvesting the potato crop, and thus also for a complete harvester, there was little development owing to implement manufacturers being "too busy producing increased supplies of ordinary equipment, and too short of design staff, to put the necessary effort into experimental and development work."[28] By 1949 the harvester was reported to still be in an "experimental" stage.[29] However, by this time its development was regarded as a matter of great importance and great urgency and intensive steps were taken by farmers, implement manufacturers and government departments to develop a suitable machine.[30] As the development of a suitable machine was both difficult and slow, two very influential committees which looked at the question of obtaining labour, particularly school children, for the potato harvest - the Harvest Labour (Scotland) Committee of 1949 and 1950 and the Rose Committee of 1956 - thought that more could be done to develop a suitable machine. Both thought that incentives, including financial payments or assistance, should be given to government agencies, industrial companies or individuals to

develop a satisfactory machine.[31] Such was also the view of East Lothian farmer J. E. Rennie of Greendykes, Macmerry, who later became Chairman of the Potato Marketing Board.[32] So important was the need to produce a machine that in 1956, one year after it had its powers restored to it, the Potato Marketing Board, held its first annual working demonstrations of harvesters in various potato growing districts, including Drem in East Lothian and Kingskettle in Fife, to show the rate of development of the complete harvester, and how prototype machines and those on the market worked alongside one another on the same soil type and under trial conditions; these were continued in subsequent years and are still held today.[33]

Although many attempts were made to develop a satisfactory complete harvester, models did not always work successfully. During a trial of twenty-three harvesters undertaken by the Royal Agricultural Society of England, (RASE), in 1952 less than half provided an all-round performance when they operated on stony, heavy and fen land to warrant the sufficient attention of the judges; no machine was good enough to earn one of the Society's medals.[34] In 1955 officials from the Department of Agriculture for Scotland (DAS) took members of Edinburgh Education Committee to see a Packman harvester at work in order to show them that as no satisfactory harvester had been developed, children from the Edinburgh area would have to be released from school to harvest the potato crop in the Midlothian area.[35] During the following year, 1956, the Rose Committee could conclude "that there is not yet in existence either in this country or abroad a machine which would make possible a noticeable

reduction in the labour force necessary to maintain the present acreage of potatoes in Scotland."[36]

However, during the late 1950s harvester development in Britain was more advanced than in other countries, including the United States where they were widely used.[37] As the development of a satisfactory harvester was slow, some people believed that it would not be developed at all. Claude Culpin of the National Institute of Agricultural Engineering commented in 1959 that there was "no present likelihood that a fully successful harvester would emerge."[38] Sir Thomas A. Wedderspoon of Castleton of Eassie was not optimistic about the development of a successful machine which could operate in all conditions, or even the adoption of a machine on a wide scale:

> The complete mechanization of the harvesting of potatoes for human consumption has so far baffled most countries in the world. It is true that there are machines which will operate satisfactorily in small areas where, given favourable weather, soil conditions are suitable, but their application is distinctly limited. Broadly speaking, we still use the same tools as we did twenty-five years ago.[39]

Nevertheless, although machines were used "with limited success" during the mid 1950s, their performance was improving, and "considerable progress" was said to have been made by 1957.[40] During the 1959 demonstration of potato harvesters held by the Potato Marketing Board "several" harvesters which employed "half the number of pickers, were working at the same

speed and doing as good a job as a good hand-picking team of 10."[41] By the early 1960s, some of the problems faced by machines were becoming less severe.[42] Important breakthroughs were thought to have been made around 1970 when more reliable machinery became available, spurring farmers to adopt it.[43] Four years later, a survey undertaken by the Potato Marketing Board and other bodies into potato damage shows how it was possible to harvest potatoes with a harvester without excessive mechanical damage. This provided a contrast with a similar survey undertaken in 1961 when much damage, some of it severe, is reported.[44]

TYPES OF MACHINES ADOPTED

As potato growing was undertaken on varying scales, various types of harvester were used. These were: manned harvesters capable of harvesting either one or two drills or rows at a time; unmanned, which could harvest either one or two drills or rows at a time; and self propelled.

One row manned harvesters were machines which harvested one drill at a time and had facilities for persons to stand on the back to separate potatoes or trash (Fig. 13.4). For harvesting the maincrop, they were generally used by growers who had the smallest acreage as they did not have a large enough output to harvest large acreages. Indeed these were the first machines to be developed (Table 13.3). Growers with more extensive acreages used other types. In 1980 most growers with

over ten hectares employed a two row manned machine which harvested two drills at a time (Fig. 13.5). In total 29% of farms with fifty acres or more of maincrop harvested their acreage with this type. Conversely, a relatively large number of growers with less than two hectares used this type, a fact which may be explained by the use of second-hand machines at that time.

FIG 13.4. ONE ROW MANNED HARVESTER

Source: Field work, Orchardfield, Kirknewton, October 1990.

TABLE 13.3. TYPES OF HARVESTER USED IN SCOTLAND DURING 1980

Type of Harvester	Hectares of Maincrop Grown on Farm Unit						
	-2	-5	-10	-25	-50	50+	All
1 R manned	0%	59%	41%	13%	6%	7%	21%
2 R manned	16%	0%	0%	11%	25%	29%	13%
2 R Unmanned	0%	0%	0%	12%	16%	23%	10%
2 R Self-Propelled	0%	0%	0%	4%	2%	7%	3%
X-Ray	0%	0%	0%	15%	6%	0%	6%
Total using harvesters	16%	59%	41%	55%	55%	66%	53%
Total using spinners and diggers	84%	41%	59%	45%	45%	34%	47%

Source: Potato Marketing Board, "Crop Production Survey, 1980," n. pag.

FIG. 13.5. TWO ROW MANNED HARVESTER

Source: Field work, Aberlady Mains, August 1995.

Unmanned harvesters, fully automated machines which had no facilities for workers to separate potatoes from any trash (stones, clods and shaws), were employed by growers with larger acreages (Fig 13.6). In 1980 all two row unmanned harvesters harvested the maincrop on farms with over ten hectares of maincrop. Even greater numbers were found on larger units. Some 23% of the main crop on farms with over 50 hectares was harvested by them. X-ray harvesters (which had facilities for a picking table on them) also harvested the crop on relatively large units, and only on farms with between ten and fifty hectares of crop. In general unmanned harvesters were less popular than the

manned harvesters. Self-propelled machines, machines which had a driving engine to propel the harvester rather than being powered and driven from a tractor, had a similar pattern of use to both the two row manned and two row unmanned machines (Fig 13.7). All were employed on farms with over ten hectares of main crop. However, of all the types of harvester, this was the least used.

FIG. 13.6. UNMANNED HARVESTER

Source: Field work, Potato Marketing Board International Potato Harvester Demonstration, Spilsby, Lincolnshire, September 1991.

FIG. 13.7. SELF PROPELLED POTATO HARVESTER

Source: Field work, Potato Marketing Board International Potato Harvester Demonstration, Acaster, Yorkshire, September 1994.

FIRST EXPERIENCES IN WORKING WITH MECHANICAL HARVESTERS

As the adoption of the complete harvester took place over many years during the second half of the twentieth century, certain of the problems faced by the first growers were very different from those who adopted it in later years.

During the early years of the use of the harvester, machines were found to perform according to the soil conditions of the fields in which they worked. Their performance varied according to the soil conditions within a field, between fields, throughout a

season and from year to year.[45] So noticeable was this problem that one writer was of the opinion that farmers should see a working demonstration of a machine on their farm before they purchased it.[46] Machines would not all work successfully in all fields. In 1959 Sir James Duncan comments that:

> There are machines which will work quite satisfactorily indeed in good weather on flat land which has no stones, or very few stones, on it, but when we come to the more difficult land on hillsides, which has stones on it and which is as wet as it is today, we really have not yet got a machine which will do the work.[47]

Because machines could not work under all conditions, growers might have to resort to old methods of harvesting their crop with squads if they could not get their harvester to work satisfactorily under certain conditions. Alex Denholm, potato merchant at Musselburgh, notes that he encountered many problems:

> I had one or two harvesters and dumped them in the end of the field, and dumped them here and there. They were no use when they first started. ... Oh, shocking, what shall I say! Seven or eight hundred pounds, as I remember, seven or eight hundred pounds for the harvester. We couldn't get it to work. We had all sorts of engineers out. The stones were bothering it, the earth was bothering it.[48]

The harvesters also damaged the potatoes. With some this was reported to be as high as between 50% and 90%.[49] Nevertheless, by 1960, the amount of damage was said to be considerably reduced and with some machines was as low as 4%; with hand picking the figure was 9%. However, with some machines more damage was caused than others.

Even if the earliest harvesters could work successfully, growers found that they were faced with a harvesting system which was slower than working with squads. During the early 1950s farmers thought a complete harvester should, under reasonable conditions, harvest three acres a day.[50] However, machines could usually only harvest far less. At the harvester trials of the RASE in 1952 only five machines which worked on stony land could harvest three or more acres during an eight-hour day; others achieved as little as 1.2 acres.[51] Growers in the Lothians also note how at that time, and for many years afterwards, work with a harvester was slower than working with squads. At Freelands, for example, where 30 acres were grown, the harvest was seen as a problem as the harvester could only harvest about one and a quarter acres a day and even less where the days became shorter and conditions generally more unfavourable during October.[52] For potato merchants with larger acreages they were faced with even greater problems:

> The potato harvesters at that time were slow. It was all right for a farmer to have mibby twenty or thirty acres to dig and he worked away with his harvester. But where we had hundreds of acres we had to get on and get

> them dug you see. We still needed the squads to get the work done.[53]

Because of the low work output growers with larger acres sometimes bought and used two machines. Others used a relatively large labour force on their manned harvester to maintain work output. As the work was slow some of the potato merchants who had bought a harvester went out of mechanical harvesting as they found it difficult to harvest their large acreages.[54] Until stone and clod separation was developed, they could harvest their crops more quickly using squads as they could clear a greater acreage each day and could also work under more unfavourable conditions.[55] Some growers like Robert Holmes at Pilmuir only harvested part of his crop with a harvester and reverted to squads for harvesting the maincrop, which formed the greatest acreage of the crop grown.[56]

Because of the low output of the first harvesters, growers were aware that if they were to harvest their crops mechanically during the short harvesting period they had to alter their harvesting practices. The start of the harvesting period was brought forward into September so that a greater length of time was available to harvest the crop. In addition, as working conditions were generally more favourable at this time, better progress could be made.[57]

Growers who adopted the harvester during the 1980s and 1990s found that harvesting with a harvester was a very different experience to that in earlier years when stone and clod separation was not available. Machines worked well under

varying soil conditions, could harvest a larger acreage than squads and did little damage to the potatoes. Generally "machines were better." Farmers were also pleased with the work which was produced.[58]

ADOPTION OF THE COMPLETE HARVESTER: STAGES OF MECHANISATION

There were three distinctive stages in the adoption of the complete harvester. The first, an innovative period occurred when machines were used on easily worked soils. Of very limited application to Scotland and the Lothians, this stage was largely confined to certain districts of England where soils were light and relatively free of stones and clods such as skirt, silt and sand.[59] During this stage, machines were adopted by farmers who had acreages which could justify the cost of purchase, and be viably used.[60] The second stage occurred as machines became more reliable. As growers had more confidence in them, they adopted them in increasing numbers and their adoption became more widespread. During this stage they could harvest on a wider range of soil types, though still not on heavier soils such as clay and heavy loams.[61] This phase allowed for widespread mechanisation in another way. Once better designs were available, they replaced the first machines which had been used. As the first growers invested in the new machines, they sold their first ones, thus enabling smaller growers with less capital to spend on mechanisation to buy a complete harvester. By the mid 1970s the oldest harvesters were found on farms where smaller acreages

were grown. In 1975 the Potato Marketing Board found that for harvesting the maincrop varieties some 34% of farmers who had under five acres of potatoes used machines which were eight years of age or older.[62] Conversely, all of the newer harvesters were found on farms where larger acreages were grown; no new machines were used on farms with under five acres of maincrop.[63] The third stage occurred with the introduction of stone and clod separation, which allowed the complete harvester to work successfully in conditions which would have been very trying for it where the process was not used.

RATE OF ADOPTION OF THE COMPLETE HARVESTER

Just as the rate of development of the complete harvester was slow during the post-war period so too was its adoption and use. In 1942, the first year a machinery census was undertaken in Britain, a late date by comparison with some other European countries, the mechanical potato harvester was not included as a class of machine.[64] Even by 1956 only seventy-three were in use throughout Scotland.[65] Although employed to a very limited extent in many areas by 1960, there were signs that the number was increasing. Officials from the DAS note an increased use in the Lothians, as in Berwickshire (Table 13.4). In Morayshire and Ross-shire significant proportions of the crop were mechanically harvested, although the extent of area under the crop in both counties was not great. In other areas where soil conditions were not suitable for harvesters, or where labour was still available and

more traditional harvesting systems were favoured, as in Banffshire, Dumfriesshire, Kincardineshire and western Perthshire, there were very few complete harvesters.

TABLE 13.4. ADOPTION AND USE OF THE COMPLETE HARVESTER IN CERTAIN COUNTIES OF SCOTLAND, 1960 TO 1962

County /Year	1960	1961	1962
Aberdeenshire		28 machines in operation	
Angus		At least 100 potato harvesters are working	Some increase
Banffshire		2 machines in operation	
Berwickshire	Mechanisation not increasing appreciably		A fair number are now being used. The larger growers now have two of these machines
Dumfriesshire	Only one prospective purchaser is known		
Fife	8 harvesters in operation	25 harvesters in operation	
Kincardineshire		12 harvesters in operation	
Lothians		Certainly on the increase	One notable feature ... was the number of potato harvesters
Morayshire		Estimated that 40% of the crop harvested by machine	
Perthshire and Kinross	In West Perth mechanised harvesters have made no impact in the area. About 20-30 harvesting machines in Perthshire.	In West Perth ... not more than half a dozen harvesters in use.	
Ross-shire		Estimated that 30% of the crop harvested by machine	

Source: SRO, AF59/68, AF59/69, AF59/70.

By the mid 1960s the complete harvester had still not made great inroads into harvesting the potato crop. In 1965 throughout Britain an estimated 20 to 25% of the main crop was harvested by the harvester, a figure which would have been lower in Scotland where it was generally slower to be adopted.[66] In Scotland its rate of adoption continued at a lower rate than in England and Wales, and was also slower. Nevertheless, the amount of main crop harvested by it increased. While it was only 31% throughout Scotland during 1973, by 1975 it had increased to 40%. By 1980 it was 53%, a figure far lower than the 71% for England and Wales.[67] Additionally, for harvesting the first earlies at that time the complete harvester was also used to a lesser extent in Scotland. However, owing to the specialised harvesting requirements of that crop, hand picking systems were generally still favoured.[68]

Within Scotland there existed great regional differences in the rate of adoption of the complete harvester. In 1975 the greatest use was made in the Lothians, south-eastern counties and the eastern border counties where it harvested between 80 and 90% of the main crop. In other areas mechanisation took place at a slower rate. In Fife, one of the more important growing areas, it harvested between 60 and 70% of the maincrop. In south-western and western Scotland from Argyll southwards to Wigtownshire the harvester was used to an even lesser extent, and harvested between 50 and 60% of the maincrop. Even lower rates of between 20 and 30% were recorded in the largest potato growing areas of east-central Scotland. Here the complete harvester had

not made any significant contribution to harvesting.[69] This latter region was an area where the harvester took longer to be adopted and at a later date than in other progressive areas, such as the Lothians, where conditions were more suitable for its earlier use.

By 1990 the mechanical harvester was the most widespread implement used to harvest the potato crop throughout Scotland, although spinners and elevator diggers were still employed by some farmers and potato merchants, even in the Lothians. By 1995 the use of mechanical harvesting was total in the Lothians.

PUSH FACTORS FOR MECHANISATION

While performance and work output may have discouraged some growers from buying a complete harvester during the early years of its development, there were other reasons why their rate of adoption was slow. As most of the crop was harvested with the assistance of casual labour obtained from local sources, or transported from other areas, the ability to obtain it played a central role in the adoption and spread of the complete harvester.

Both W. J. West and S. J. Wright note that before the outbreak of the Second World War the labour situation was not serious enough to create a demand for a mechanical harvester.[70] Even as late as 1960 Wright comments how "there are still willing hands enough to do the job."[71] Both suggest that the ability to obtain labour, and large quantities of it, deterred farmers and other growers from adopting a harvester. On the other hand, lack of casual labour, or shortages at local and larger levels, gave

farmers an impetus for mechanising the harvesting process as far as possible. Much evidence which relates to labour availability for the potato harvest after the Second World War shows that the labour supply had an important affect on the adoption of the mechanical harvester. For example, when children who were exempted from school attendance were no longer available in large numbers during the later 1950s, and it was known that they would no longer be released from school after the 1962 harvest, Garnet Wilson, chairman of the Harvest Labour (Scotland) Committee of 1949 and 1950, comments how "farmers foresee children being no longer available, and they are taking precautions by purchasing harvesters."[72] As labour shortages became more evident during the early 1960s and the 1970s, the complete harvester was adopted in increasing numbers. During the 1970s the connection between labour supply and use of the complete harvester and labour supply was also linked in a survey undertaken by the Potato Marketing Board. It notes how in Scotland and the south east and the Midlands region of England, where lowest use was made of the harvester, a greater amount of labour was available for harvesting using hand gathering systems.[73]

Experiences of potato growers in the Lothians also show how important the question of obtaining labour was in relation to the adoption of the complete harvester, not only during the 1950s, but through to the late 1980s. At Pilmuir, Balerno, labour was only available in small amounts and also only at weekends, making harvesting difficult if the weather was inclement when the workers could be obtained. A difficult situation was also

noted at Dolphingstone where Andrew Hastie comments that: "we didn't want to face forty to fifty acres with something like eight to ten women and other casuals who weren't very reliable." David Dandie comments how during the 1980s "labour was a nightmare" to obtain. George Lothian recollects that by the end of that decade "it was a heartache for the squad gaffer to get labour."[74] During the late 1980s changes to employment legislation also meant that gaffers found labour difficult to obtain:

> Then again the gaffers and that had to get registered. You couldn't get the same workers. Some people could still get them, I must admit, but there was a lot couldn't get a big enough squad or didn't want to hae a big enough squad.[75]

Many growers also found that the quality of the workers was also declining. Additionally, the labour supply became less reliable than formerly. Some workers were only willing to come out for a few days and then became weary and would not continue. Additionally, on some days a large squad would come out to work and on the next, few workers would turn out.[76]

The complete harvester was seen as the solution to the problem of obtaining labour. The Harvest Labour (Scotland) Committee comments in 1949 that "the problem of labour for the potato harvest would in large measure be solved by the production of a complete harvesting machine."[77] Similar conclusions were reached in 1956 by the Rose Committee, who see it as "the only feasible alternative, in the immediately foreseeable

future and under the present circumstances of full employment, to the exemption of school children."[78] This would also solve, for educationalists and politicians, the political and social problem connected with the annual release of children for work at the potato harvest. Even in later years farmers and other growers also thought that mechanisation was the solution to their problems of obtaining a supply of labour. Thus, when David Dandie at Pumpherston was faced with great problems in obtaining labour during the 1980s, he said "we had to either go that way [mechanise] or go out [of growing potatoes]."[79] While some growers went out of potato growing, he mechanised the harvesting process.

While the supply of casual labour had a great impact on the rate at which mechanisation spread, so did the cost of labour. Where crops were harvested with squad labour, the cost of that labour was the single largest input in the harvesting costs, which also represented a large proportion of the total cost of growing the crop. For the crop to be a profitable one, harvesting costs had to be kept as low as possible.[80] With the increase in the standard of living and higher wages after the Second World War, labour became more costly to hire, and harvesting costs were increased.[81] During the 1980s "squads was getting expensive."[82] The cost of harvesting with squads became uncompetitive. As the price of labour increased and the price of potatoes fell, the overall costs of producing the crop increased. As one farmer comments, "they actually priced themselves out of the market."[83] Labour bills on some farms were very high indeed. Robert Holmes notes that

on one farm some £10,000 was spent on wages for harvesting the crop alone.[84]

Where tasks could be carried out mechanically, manual labour compared unfavourably, and even where mechanised potato harvesting was undertaken it was cheaper than that undertaken by manual labour, even allowing for depreciation of machinery.[85] Even where labour could be obtained, its high cost acted as an incentive for some farmers, at least, to mechanise.[86] Growers looked at the costs of harvesting with squads and buying a harvester, and compared them. For some potato merchants who went into mechanisation for the first time around 1990, it was cheaper than employing squad labour. George Lothian comments how it was "cheaper to mechanise."[87] George Lambert extends this point further:

> We found that we could buy ... a planter, stone separator, rotovator, harvester, the whole shootin match ... we'd take it over about four years. It was going to cost at the outset about eight thousand pounds a year less than we were paying for squads.[88]

Although labour may have been expensive to hire during the early phases of mechanisation it was cheaper for some growers than buying a complete harvester. These were sometimes growers who had a small acreage which could not justify the purchase of a harvester. During the late 1950s it was not thought to be economical to buy a harvester where less than about 25 to

30 acres were grown.[89] For others, the use of squads could handle their large acreages more successfully.

Experiences in working partially with machines and partially with squads on some farms also led to the adoption of the complete harvester. In the first years when a machine was employed on some farms it was used alongside a squad to harvest part of the crop.[90] At Pilmuir, Balerno, around 1981 a harvester was employed to harvest the first earlies and the maincrop when labour was not available. During 1981 about two-thirds of the crop was stone separated at planting time. When it was found how easily the harvester worked on the de-stoned land compared with working with a squad of children, the crop was completely stone and clod separated in the following year and mechanically harvested.[91] Other farmers who worked with both squads and the complete harvester also found that mechanical harvesting was an easier system to work with, and changed to using a complete harvester.

Particularly when the harvester was becoming more widespread, other factors led growers to mechanise. Higher quality potatoes were being demanded for general use and also pre-packs of potatoes. As harvester performance improved, particularly when used in conjunction with stone and clod separation, a better quality sample of potatoes could be produced where harvesters were used instead of a hand gathering system. In addition, a cleaner sample of potatoes could be placed into trailers or potato boxes as gatherers had a tendency to put shaws, some stones and excess soil in their baskets along with the potatoes.[92]

Changing patterns in the potato trade, particularly for first earlies and second earlies, also brought changes which made it advantageous to work with a complete harvester:

> Things has changed a lot as well. ... Before the trade has changed so much and the pattern of selling potatoes. Gone are the days that you could get eighty and ninety ton away in a bag. That days passed. You could maybe get a squad in the morning say four on dresser and maybe had eighteen pickers plus maybe four box timmer or something like that. You're speaking up to twenty-four, thirty people. Eh, you couldn't get a day's work for them. You maybe get drier stuff at dinner time [grain drier] Your orders was up. You had nothing for them for the afternoon you had to put them away home. ... Going to the harvester you can take out three people an dig in the morning and dress in the afternoon ... you don't have the hassle of putting the squad home at dinner time.[93]

For farms which grew large acreages of first and second earlies which were sold immediately after harvesting, the adoption of the harvester could solve problems posed by the changing pattern of the potato trade.

LABOUR FORCE AND LABOUR REQUIREMENTS FOR THE COMPLETE HARVESTER

The use of the complete harvester altered the amount of labour, particularly casual labour, required to harvest the crop. No

longer did a squad have to be recruited. Instead only a few workers were required to separate any trash from the potatoes on the harvester. The number of these varied according to the harvesting system and its working capacity (Table 13.5). While the table shows average sizes, the actual use varied according to the condition of the soil, the crop and state of the shaws at harvesting time and also whether the soil had been stone and clod separated.[94]

TABLE 13.5. AVERAGE TEAM SIZES ON MACHINE SYSTEMS, 1977 TO 1978

Machine Type	Harvest Drivers and Tractor Drivers	Pickers	Store Workers	Total
Spinner	2.4	16.7	0.3	19.4
1 Row Elevator	2.3	10.6	0.4	13.3
2 Row Elevator	3.4	23.2	0.9	27.5
Manned 1 Row	2.8	4.1	0.4	7.3
Manned 2 Row	3.4	3.8	1.1	8.3
Unmanned 1 Row	3.4	-	0.9	4.3
Unmanned 2 Row	3.8	-	2.9	6.7
X-Ray	3.4	-	1.0	4.4
Self propelled	3.9	1.1	1.9	6.9

Source: Potato Marketing Board, Maincrop Potato Production Techniques ... 1977-8, p. 65.

Farmers, potato merchants and their employees throughout the Lothians who recollected what it was like to work at the potato harvest, had mixed reactions to the change from working with squads to working with a complete harvester, or even stopping growing potatoes. They acknowledged that the systems were very different to work with. There were elements which they missed when the change was made:

> There was something nice about the squad. There was a lot of camaraderie. You enjoyed yourself too. There was also the heartbreaks.[95]

> Oh, they would tie the carter's sleeves o his jacket or they would fill his pockets wi frogs ... and different things like that. They would tie the baskets together, you know the baskets for picking. They would tie a wee piece o string and when he came to lift one he had two or three trailed all behind him. ... Oh, you'd always get jokers ... It was a very enjoyable experience. You had the wags from the dole that had stories and you had the moaners as well. But they didn't moan about conditions, they just moaned about life. There was, we had good times, a lot of good times. ... In a way you were sad to see it stopped because you enjoyed it.[96]

However, for some growers their last years of working with squads was a very difficult experience, and they welcomed the

change. George Lambert of the potato merchant Alex Denholm of Musselburgh comments upon his experiences of working with squads hired through a contractor:

> There was the odd occasion when it was an enjoyable experience. Eh, but most of the time it was hassle and pressure and as I say we would always be under pressure to keep them going, you know work them as hard. We would be under pressure from the contractor to keep everything going flat out so that he was getting the maximum out o his pickers. For instance the bulk of our crop was lifted and dressed at the same time. And what you'd maybe have was a squad that could lift a hundred tons a day and a dresser that could cope wi seventy tons a day, or trailers that could only cope with seventy tons a day and this was always a problem. You know they'd demand another trailer on and it wouldn't make a bit of difference because they would be waiting at the dresser to get tipped anyway because the dresser couldn't go harder. So things like that and if we had a breakdown we had to get it sorted double quick because again people were standing waiting, 'standing up in the field' as old Pete used to call them; and pressure to get the digger to go faster or to dig two ways and possibly it was that the field didn't suit to be dug two ways...
>
> When we changed over to the harvester it was definitely a big relief. The whole job was much more pleasant.
>
> Like the harvester doesny take boilings home wi it, it doesn't swear back at you when you tell it to do something. It doesny drop juice bottles all over the field, crisp packets, you name it. It's more user friendly lets say.[97]

Other growers also noted that they were not faced with some of the "hassle" of dealing with squads:

> We'd miss the banter but we don't miss the hassle. ... well, having to get all the tatties dug, farmers kept quiet and happy and squad gaffers kept happy, machinery breaking down and all that to repair and that's all stopped and that's someone else's hassle.[98]

> Well, what I remember was by the time we started wi the harvester we had had enough of the children. Things had got so bad that it had deteriorated so much that we were desperate to find another way out. So the harvester was really a godsend because there was no mental anguish, no having to school teacher them up and down. It was just work. You were working away quietly, working pretty hard but you were only interested in yourself, what you were doing.[99]

IMPROVED HARVESTING TECHNIQUES: AN INTERFACE WITH THE COMPLETE HARVESTER

As the development of a suitable potato harvester was slow and early machines could not be used under all conditions, new harvesting techniques were developed and introduced which made better use of the already existing harvesting implements - the potato plough, spinner and elevator digger - and other aspects of the harvesting system such as collecting containers. Their aim was to make the system more labour efficient so that better use could be made of the workers and fewer be employed.

Better use could be made of the existing implements employed to dig the crop. As the elevator digger was more efficient and effective at uncovering the potatoes than the spinner, less labour was required to harvest an acre of potatoes. While a spinner required an average of 16.7 casual workers to gather during the 1977 harvest, a one row elevator digger, by comparison, required only 10.3.[100] Although the two row elevator digger required slightly more workers, in total it required only slightly less labour to harvest a hectare. (Table 13.6). However, the two row elevator digger could harvest a greater acreage per day than the other implements.

TABLE 13.6. MACHINE USE AND LABOUR REQUIREMENTS

Machine Type	Average Team		Casual Man Hours per Hectare	Average Cost £/ Hectare
	Regular	Casual		
Spinner	2.8	16.6	142.2	123.2
Digger 1 Row	3.0	10.3	92.9	142.3
Digger 2 Row	4.6	22.9	138.8	157.1

Source: Potato Marketing Board, Maincrop Potato Production Techniques ... 1977-8, p. 67.
1 hectare = 2.47 acres.

As the use of the elevator digger led to greater productivity, better use could be made of available labour supplies. As tractor power increased and the supply of casual labour became scarcer, increased use was made of the number of elevator diggers. The "Agricultural Machinery Census" shows that while approximately 5% of the total harvesting machines were elevator diggers in

Scotland during 1942, by 1948 the figure had increased to over 9%. Further increase continued, and by 1956 14.8% of all harvesters were the elevator digger and shaker digger. By 1980 both the single row elevator digger and the two row elevator digger made a very significant contribution to harvesting the potato crop. The two row digger was the most widespread harvesting system, harvesting 35% of the maincrop; the one row digger harvested some 4%. Both systems were also widely employed to harvest the early crop.[101]

Apart from using more efficient harvester types, new technology could be introduced to assist in the tasks of handling potatoes once they were gathered from the ground. The development of the tractor foreloader during the mid 1950s allowed the gatherers to empty their baskets into wooden boxes which could then be tipped directly into carts for disposal in pits.[102] Additionally, in later years the potato box enabled the gatherers to empty their own baskets, and no men to be employed at the pits.

In addition more effective use could be made of labour. An Annual Report of the DAS notes how "in the final analysis, labour problems must depend for their solution on a more efficient deployment of existing labour and the adoption of improved techniques."[103] The Scottish Agricultural Advisory Council examined the concept of "work simplification," an idea developed in Germany during the inter-war period and revived in the United States as a result of labour shortages there during 1940. This was an idea which enabled work to be carried out more quickly and easily as a means of reducing costs by the more efficient use of

labour.[104] While employed for other agricultural work, there were possibilities that the idea could be applied to the potato harvest. This could include the use of adults to work at piece-work rates, an idea which was referred to by the Harvest Labour (Scotland) Committee as a means of improving work rates.[105]

Other studies like that undertaken by C. J. Black at the Edinburgh and East of Scotland College of Agriculture between 1952 and 1956 showed that if an elevator digger was used to capacity, and workers were paid at piece-rate wages, the same acreage could be lifted in the same time at the same cost with approximately half the pickers. The system had one further advantage: it could provide workers with an incentive payment to work harder and for farmers to obtain efficient, hard working squads. The report suggests that the system, which was employed by a number of growers, could be organised without much difficulty "on the average farm."[106]

Although the Harvest Labour (Scotland) Committee considers the extension of the method of piece-work would be advantageous, not all farmers did, and would not contemplate using it. The College Report was strongly criticised at a meeting of the Perth Branch of the Scottish National Farmers' Union, regarding its claims as "absolutely fantastic" and "arrogant nonsense."[107] One potato merchant who visited a demonstration of the method at a farm at Laurencekirk refers to it as a "system of sweated labour."[108] The use of piece-work was tried in East Lothian, for example at Auldhame and Scoughall. However, at both it was found to be unsatisfactory:

> With a top notch squad the output and pay per person should have been doubled, and all the best local gatherers would be queuing up to come to our get-rich-quick establishment. It didn't work that way - those quick workers, a few, who were also really fit, liked it - the majority weren't fit enough to maintain their speed and regarded their inability to keep up with some of their fellow gatherers as a shame they didn't want to undergo.
>
> The element of competition brought a dissatisfaction to some and a genuine overwork to others, so they were ill. The ladies of the squad were reinforced by boys who found that they had to go home each night doubled up. This job was not for average people like ourselves and our regulars and we had to give it up.[109]

Thus, the adoption of certain methods to reduce the call upon labour was not successful.

CONCLUSION

Because of the great problems in developing a satisfactory potato harvester, its development took many years and it was not until the introduction of stone and clod separation during the 1970s that the harvester could be successfully used on a wide scale. But, by the early 1990s the use of separation and harvesters allowed for the great majority of the potato crop in the Lothians to be mechanically harvested. While there were many reasons why the adoption of harvesters was so slow, one of the most important

related to labour supply, an important factor which made harvesting systems efficient to lift the crop in as short a time as possible and to use man power as economically and efficiently as possible. Indeed, shortage of labour was often the reason why growers were forced to adopt a harvester.

PART 8: CONCLUSION

CHAPTER 14: CONCLUSION

By examining the subjects of harvest technology, harvest techniques, labour supply and employment conditions at the potato harvest in the Lothians during the period 1870 to 1995, this thesis has shown that the potato harvest was a complex agricultural process which also formed a very important part of the social and economic history of that area.

To examine the subjects, an extensive range of sources was consulted which included archival material, published material, personal experiences, field observation and oral recollection. Their combination allowed for a discussion of the potato harvest on two levels, which were also interconnected. Official sources from school authorities, local administrative bodies and local government departments showed how opinion and policy had a great impact in shaping various aspects of the potato harvest. For example, it was shown how the attitudes of educational bodies towards the employment of school children influenced whether children were to be released from school to work at the potato harvest and whether any restrictions were placed upon their employment. Additionally, these sources also highlighted how statutes, as well as the work of Sanitary Inspectors, shaped the nature and standard of the accommodation given to squads of Irish migratory workers. This official interest was also central to many aspects of the employment conditions of workers employed at the potato harvest. Without examining these official sources,

concerns about aspects of the potato harvest could not be fully understood.

Secondly, the range of sources enabled the subject areas to be discussed on the level of field experience. This showed what it was like to work at the potato harvest, to obtain labour, employ workers, work with hand tools, various implements and their associated techniques, and in later years the mechanical harvester. The experiences of various writers and the oral recollections of farmers, their wives, potato merchants and their employees was drawn upon, showing how these subject areas often varied greatly from district to district and throughout the period of study, and thus how complex the experience of harvesting the potato crop was. In addition, examining their experiences showed how the various official regulations and statutes actually operated throughout the Lothians during a period when they were available.

A number of conclusions can be made about potato harvesting in the Lothians during the period 1870 to 1995.

(1) CHANGES TO THE PROCESS OF HARVESTING THE POTATO CROP

Changes were made to the process of harvesting the potato crop:

(1) Implements were adopted and used which were more effective at uncovering the potatoes from the drill in which they grew. Although the graip was widely employed throughout the Lothians by the start of the period of the study, it was replaced by

the potato plough which could harvest greater acreages during a short period of time. In turn, it was superseded by the spinner and, during the early twentieth century, by the increased use of the elevator digger.

Although the graip, plough, spinner and elevator digger were developed during particular periods, their use was complex across the Lothians and throughout time. The graip, which had been employed during the first days of field cultivation during the eighteenth century, continued to be employed until the 1950s. The spinner, patented in 1855, could still be seen at work on a few farms during the 1990 harvest. However, by the time both were last reported, they were not always employed for harvesting large acreages. Instead, they were confined to specific tasks, such as harvesting crops of first and second earlies, digging ends of drills to let a tractor get properly turned, or harvesting the crop where no other implement would dig it as ground conditions were too poor for those to work successfully. Some growers also continued to employ them as they did not think it economic to buy a more modern implement for harvesting the crop.

(2) As implements became more effective at digging the crop, the work of the gatherers who gathered the potatoes from the ground into collecting containers became easier to undertake as they did not have to search for the potatoes beneath the surface of the soil. In addition, when the elevator digger replaced the spinner, their work became easier as they were placed in a narrow band instead of being scattered over a wide area, and so they did not have to move as far to collect the potatoes. Thus, they could also undertake their work more quickly.

(3) A wide range of techniques were employed to harvest the potato crop and to specifically undertake certain tasks which were not required by all potatoes which were harvested. These were affected by the way the crop was used. For example, when it was to be harvested for immediate consumption, in for example, crops of first earlies, second earlies and some maincrops, it was usual for the crop to be dressed or sorted into various sizes and the damaged potatoes from the unsound ones which were then put into containers which could be taken away to markets or shops. To do so, specialised collecting containers such as the hamper, barrel and sack were required for that purpose. Thus, where large acreages were harvested to be stored it was not necessary to handle the crop in that manner; other containers were used instead. The way hand tools and implements were employed to dig the crop also led to some of the greatest differences to the organisation of the harvest field. For example, with the potato graip, the drills were dug lengthways and workers followed the person who was digging; with all other implements the length of the field was divided equally into sections, stents, and gatherers were placed on each.

(4) Many of the techniques employed during the late nineteenth century continued to be employed until well into the second half of the twentieth century. Nevertheless, some were altered as a result of the introduction of new digging technology and adapted to make the harvesting process more efficient so that the casual labour and farm staff could be more effectively employed. As these new techniques handled the potatoes fewer times, less damage occurred to them, an important consideration

where high quality potatoes free from bruising and cracking caused by mechanical damage and other handling, were increasingly demanded. Many of the new techniques could only be developed as a result of the increased use of tractors and special handling facilities, which enabled larger quantities of potatoes to be handled at a time, which could not be undertaken formerly.

(5) During the second half of the twentieth century the potato crop came to be harvested mechanically using a complete harvester which could separate the potatoes from the soil in which they grew, stones, clods, shaws and any other trash, and load them into collecting containers during one process. As the gathering work could be undertaken by mechanical means, squads were no longer employed to gather the crop from the ground. Instead, one or two workers were required to work on the back of some harvesters; others did not require any.

(2) LABOUR SUPPLY

This thesis has demonstrated that as the potato crop was labour intensive to harvest until it could be mechanically harvested, a large labour force was required, mostly for gathering the potatoes from the ground, a task which was the most labour intensive part of the harvesting process. While labour was drawn from four main sources - the agricultural community, villages, towns and urban areas, Irish migratory workers, and workers organised in times of crisis - their use throughout the Lothians was multi-faceted. Members of squads were sometimes drawn

from a number of sources. In some localities there was a complex mixture as potato growers drew upon various means to obtain labour, for example through labour contractors or selling their crop in the ground to a potato merchant. The use of particular sources also varied from farm to farm, district to district and throughout time as a result of changing agricultural practices and changing patterns of labour availability. Indeed, some types of workers, such as prisoners of war, were only employed at particular periods such as the First World War and the Second World War.

From these four sources, the most important groups of workers which were employed throughout the period 1870 to 1995 were local women, children (both obtained from a range of sources) and Irish migratory workers. The amount of labour which they supplied had to be flexible, both in terms of the number of hours they were employed and the actual number of workers, as labour requirements varied from field to field, throughout a season, and from season to season, owing to the acreage under the crop, harvesting conditions and the harvesting system employed.

Although evidence for the number of workers employed throughout the Lothians is fragmentary, it is clear that the extent of employment of all three groups of workers varied throughout the period of study. The reduced supply of one group had to be met by an increased supply from another so that a sufficient number of workers could be obtained. Thus, employers often switched from employing labour from one source and one group to another as one became difficult to obtain and another became

available or more convenient to recruit. Such changes operated within parishes, groups of parishes and throughout the Lothians as a whole. General social and economic changes as well as the introduction of legislation or changes in existing legislation affected the supply of workers throughout a county. For example, the introduction of byelaws under Section 171 of the Housing (Scotland) Act, 1966 made it difficult to find accommodation for squads of Irish migratory workers. As a result, potato merchants turned to recruiting alternative labour, usually local workers from the Lothians.

Although no statistics survive of the total number of workers employed for harvesting the potato crop in the Lothians or for any county in Scotland, trends can be noted in the demand for labour during the period 1870 to 1995. Throughout the period the number of workers declined as a result of the slow movement from labour intensive harvesting systems, to others which made better use of labour, to a mechanised system which was effective at utilising labour. By 1990 very few squads were employed in the Lothians; in 1995 there were none. However, an increased demand was made for labour particularly during the First World War and the Second World War and the years immediately following, when the potato acreage was greatly extended as a result of the need to produce as much foodstuffs in Scotland and throughout Britain.

The decline in the number of workers employed throughout the Lothians was the result of a number of factors which often operated together. These worked within agriculture in general and within potato growing. For example the slow decline in the potato

acreage, changes in the traditional practices of merchants buying the crop growing by the acre, and the general adoption of more effective implements and the complete harvester by potato growers had an effect of reducing the demand for labour. Secondly, the decline in the number of workers can be attributed to factors which affected the workers themselves. While one of the main reasons why they obtained employment at the potato harvest was to supplement their household income, or to provide necessary income, general improving economic changes, caused for example by the introduction of social security in Ireland, or improved living conditions in Scotland, meant that it was not as necessary for them to obtain employment at the potato harvest to obtain additional money. Additionally, in Scotland the general trend for married women to undertake casual employment throughout the year meant that fewer were available to undertake the casual employment at the potato harvest. For children, their decline was largely controlled through powers held by the Secretary of State for Scotland under the Education (Exemptions) (Scotland) Act, 1947, which operated between 1947 and 1962. After that date, their decline was caused by social and economic circumstances, as it was for the local women and the Irish migratory workers.

(3) THE WORKERS EMPLOYED AND THEIR EMPLOYMENT CONDITIONS

Each of the three main groups of workers had its own character. The age of members of each group was particularly

characteristic of each. Although squads of local women and Irish workers were sometimes composed of workers which ranged from teenagers to others of an advanced age, there was a tendency for the former to comprise workers of an older age group, and in the former, in their teenage years and their early twenties. Each pattern was the result of personal, social and economic circumstances of the workers which affected their ability to undertake the work. For example, it was suggested that the locally employed women had to arrange for their children to be looked after while they undertook employment. For those who could not make any arrangements, or could not bring their children to the field, they waited until their children were old enough to look after themselves before they undertook the work. However, for children, the age at which they could be employed was regulated by the statutes and local regulations, so that they could only be employed of a certain age. The minimum age at which they could be employed tended to increase during the late nineteenth and twentieth centuries.

Of the three groups of workers, the character of the local women and the Irish migratory workers altered greatly during the second half of the twentieth century as a result of changing social and economic circumstances in both Scotland and Ireland. Workers who were largely recruited from agricultural and rural areas, and also within close proximity to the farms where they were employed, were gradually replaced by others from large housing schemes, industrial areas and cities which had no connection with working on the land. That change, which was noted in both Scotland and Ireland, resulted from employers

having to draw upon new sources for obtaining a supply of labour as the workers from the traditional areas no longer made themselves available for work as they engaged in other types of employment.

Similarities as well as differences in employment conditions were noted among the three main groups of workers employed in the Lothians. These were caused by a number of factors:

(1) Similarities were found in the number of hours which workers were employed and the breaks taken for food and drink. The hours when casual workers were employed were regulated by the hours the farm staff was employed as both groups had to work together as a team to harvest the crop.

(2) Customary practices, such as the giving of a drink and the "perk" of the boiling, led to similarities in employment conditions between all three groups of workers. The giving of these was a very strong custom throughout the period of the study. Indeed, so strong was the "perk" of the boiling that workers thought it was an accepted part of their work at the potato harvest. As Alex Denholm points out, "they took them whether you liked it or not."[1] Such "perks" also continued to be given as they acted as incentives for workers to obtain employment from certain employers. With the boiling, "they said they wouldn't come back [if they didn't get it]. So you had to either give them it or do without them."[2] So strong were the traditional customary practices that experience of employment at the potato harvest and field recording noted their existence until the last squads were employed in the Lothians.

(3) Differences in employment conditions resulted from the adoption and use of regulations and legislation. It was usual for the introduction of legislation to have an impact on selective employment conditions, or only to various aspects of them, such as the payment of wages or the transport of children. However, for the employment of children exempted from school attendance during the period 1947 to 1962, all their employment conditions, which included the giving of customary practices such as a drink, were regulated, a situation which only occurred at that time, and for that class of workers. That situation arose as a result of the increased criticism of the employment of children at the potato harvest and the need to protect their health and safety by improving their general working conditions.

The effect of the introduction of regulations and legislation exhibited two patterns. It affected only certain groups of workers. As a result, they had employment conditions peculiar to them, and which were not experienced by other groups. For example, the accommodation given to the squads of Irish migratory potato workers and the payment made to children for time they spent travelling to and from their work between 1947 and 1962, were unique to these groups. Some legislation, such as the payment of a particular wage rate, affected all groups, and was common to all.

(3) The circumstances of the workers also had a great effect on their conditions and on their experience of working at the potato harvest. While the local women and children were usually employed near to their homes, and were transported from them on a daily basis, the squads of Irish migratory workers were employed far from their homes in Ireland, and had to be specially

accommodated in the Lothians. They were also employed throughout the season for harvesting the potato crop from June or July until the end of October, or even into November; a few stayed throughout the winter and spring months to dress the crop for market. Locally employed workers recruited in Scotland did not always harvest the crop throughout the entire season. For example, children were only released from school for a particular period, from one to four weeks, during October.

Various steps were taken to ensure that the employment conditions of workers were satisfactory. While the Irish migratory workers took steps at various times to organise themselves into a union, and officials visited the children at work during the period 1947 to 1962, workers also took other steps to improve their conditions. For example, in some squads of locally employed women a spokeswoman was employed to speak up for the workers. As Alex Denholm, potato merchant at Musselburgh, comments of his spokeswoman, Mrs Hood, "She could talk, oh sure. Oh, she knew her way around, aye."[3] The most effective way by which workers secured improvements was through themselves or their spokeswoman voicing complaints in the field, through various mechanisms, so that any complaints could be rectified as quickly as possible.

(4) MECHANISATION OF THE POTATO HARVEST: THE CHANGING FACE OF THE POTATO HARVEST

The process of mechanising the potato harvest, which started during the eighteenth century and was completed during

the second half of the twentieth century, comprised two phases, which each had distinct characteristics. During the first, various implements were developed, adopted and used which were each more successful at uncovering the potatoes from the drill in which they grew, and made the work of the gatherers easier to undertake, so that a greater amount of work could be undertaken in a day using fewer workers. However, the potato plough, spinner and elevator digger did not substantially reduce the demand for labour, as large numbers were still required to gather the potatoes from the ground. During the second stage, which took place during the second half of the twentieth century, labour requirements were greatly reduced and production was increased so that a greater amount of work was undertaken through the development of the complete harvester. The development of that machine also enabled better quality work to be produced than could be achieved by squad labour.

However, as many problems were posed by the need to separate the potatoes from other materials in the drill in which they grew, the development of the complete harvester took many years to accomplish, as machines did not always work successfully, and squad labour could work more efficiently. Although satisfactory designs were developed, the mechanical harvester really only became successful on all farms as a result of the development and use of stone and clod separation which allowed for reduced amounts of stone and clod to pass onto the harvester.

The adoption of the complete harvester, which reduced the employment of squads of labour, was a slow process, not only in

the Lothians but throughout Scotland. Employers had various reasons for adopting the machine, which were often personal. However, some were common to many across the Lothians. The problem of obtaining a sufficient supply of labour, and one which was also of a high quality, were perhaps the most important factors which led to the adoption of the machine. During the second half of the twentieth century, shortages of labour became particularly evident as workers no longer made themselves available for employment in as large numbers. At the same time increasing wages also made the use of squads uncompetitive by comparison to the complete harvester. For some growers, the changing nature of the potato trade and the demand for high quality potatoes undamaged by mechanical implements also pushed them towards mechanised harvesting. So too did the improved performance of the harvesters by the 1980s. Thus, the adoption of the complete harvester was a response to problems in the traditional harvesting system as well as general changes in the character of the potato industry.

The transition from using hand tools to more efficient implements and then mechanical harvesters, as well as labour saving techniques was a process which was initiated, adopted and used by potato growers in the Lothians to make the crop easier to harvest. While that change was a slow process, it was an accepted one. As David Dandie comments, "it was just like going from binder to combine harvester."[4] For some growers faced with great problems in obtaining labour and working with that labour, the change to mechanised harvesting was also one which was welcomed. That transition marked an important change in the

appearance of the potato field during harvest time, one which had altered beyond recognition from earlier days.

This research was undertaken at a time when the last vestiges of an earlier system could still be studied and when evidence was still available from oral sources which will disappear shortly. By 1995, squads were no longer employed and the sight of a squad gathering potatoes became a thing of the past. The thesis has encompassed a period which saw both continuity and change, and a human contribution to food production which rightly deserves close scrutiny.